

Community Health Assessment
of the
Montachusett Public Health Network

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EXECUTIVE SUMMARY

I. Introduction

This Community Health Assessment is designed to provide information and analysis relative to health status, issues, concerns, and assets of the communities that form the Montachusett Public Health Network (MPHN). The assessment includes the 11 cities and towns served by the MPHN: Athol, Clinton, Fitchburg, Gardner, Leominster, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster. In addition to providing a picture of the communities' health, this Assessment meets contractual requirements for the Public Health District Incentive Grants (PHDIG) awarded to local public health districts by the Massachusetts Department of Public Health and funded through the CDC National Public Health Improvement Initiative. The PHDIG program is intended to permanently strengthen the local public health infrastructure in Massachusetts by taking maximum advantage of limited resources to protect population health, prevent injury and disease and promote healthy behaviors through policy change and service delivery at the regional level.

The MPHN contracted with the Joint Coalition on Health of North Central Massachusetts (JCOH) to conduct this assessment. The JCOH was formed in 1998 and is a group of committed individuals and organizations working collaboratively as catalysts for change and advocates for the underserved to improve the health and well-being of everyone in North Central Massachusetts. The JCOH subcontracted with LUK Crisis Center, Inc. to conduct the qualitative portion of the assessment including Focus Groups and Key Informant Interviews.

The stated goal of the MPHN is *“raising the health status of the residents of our communities to the highest levels anywhere in the country”*. Previous community health assessments, including the Community Health Assessment of North Central Massachusetts together with reports by the Department of Public Health, identified elevated levels of drug abuse, obesity and suicide among the residents of the MPHN communities. These conditions not only have an immediate adverse impact on health status, but also have downstream effects that can linger for years, compromising the lives of entire families. As a result, the MPHN decided to make a concentrated effort to study these conditions in this community health assessment.

II. Assessment Structure

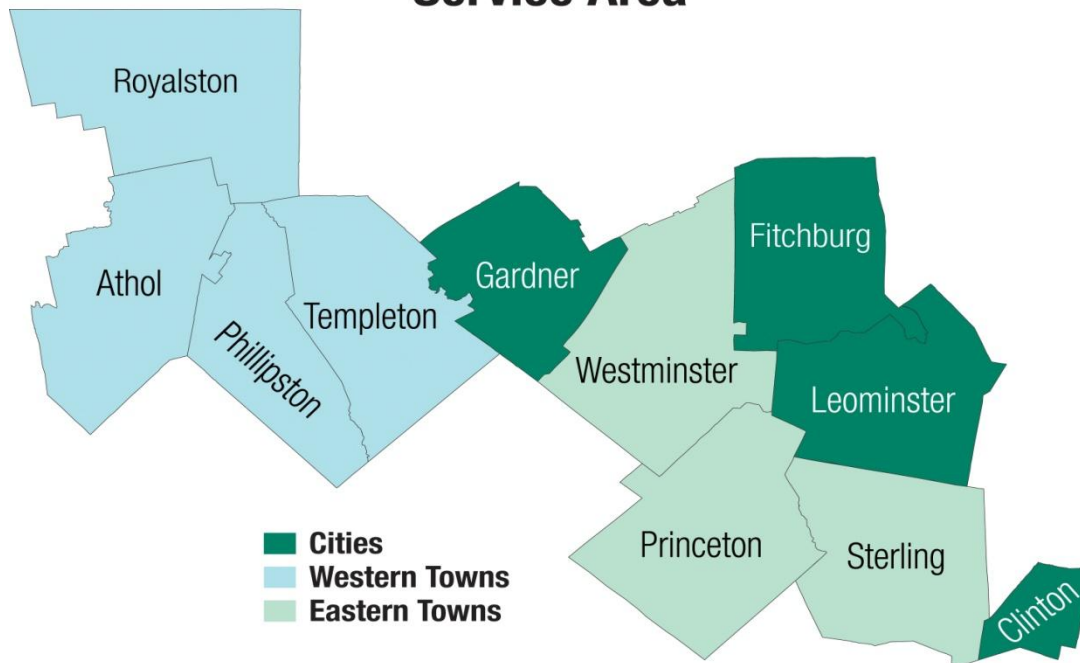
This Assessment has been divided into two parts. Part 1 contains data related to the demographic and sociodemographic characteristics of the MPHN region as well as quantitative and qualitative data related to the MPHN's three priority areas: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Part 2 contains data related to the General Health Characteristics of the region. Data in Part 2 is primarily quantitative in nature. Any qualitative information included in Part 2 was spontaneously generated by Focus Group and/or Key Informant Interview participants.

III. Study Area Overview

The Montachusett Public Health Network (MPHN) service area is composed of 11 cities and towns in the Montachusett area of the North Central region of the Commonwealth of Massachusetts. These communities are Athol, Clinton, Fitchburg, Gardner, Leominster, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster.

Quantitative data in this report is presented individually for the cities of Fitchburg, Gardner and Leominster and for the town of Clinton. The remaining smaller towns in the MPHN service area are sometimes combined into reporting regions to obtain meaningful data. The towns of Athol, Phillipston, Royalston and Templeton are combined to form the Western Towns reporting region, while the towns of Princeton, Sterling and Westminster are combined to form the Eastern Towns. When data is combined, the numbers (population and instances of a particular indicator) are aggregated across communities.

The Montachusett Public Health Network (MPHN) Service Area



IV. Methodology

Data for the Assessment was gathered systematically utilizing the following standards or principles:

1. Availability of multiple years of data on study elements;
2. Specificity of data to the Study Area communities;
3. Appropriateness of data collection methodologies to the data source;
4. Broad participation among the stakeholder populations; and
5. Broad range of input from qualitative and quantitative sources.

A. Quantitative Data

The majority of the quantitative data collected for this assessment came from the Massachusetts Community Health Information Profile (MassCHIP). Other sources include: the Massachusetts Department of Public Health; the United States Census Bureau; the Massachusetts Department of Workforce Development; the Massachusetts Department of Elementary and Secondary Education; the Youth Risk Behavior Surveillance System; the Massachusetts Judicial Branch, Trial Court; the United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration; and the United States Department of Health and Human Services, Healthy People. Whenever possible, three years of data were used for each measure and, when feasible, data is provided for individual towns.

B. Qualitative Data

The quantitative demographic, socioeconomic and health characteristics reported in this assessment tell one significant part of the story. The other piece of the story is told by how community members live, think, talk and interact with each other; by what moves them and what they value; by their collective and individual experiences. Understanding this, qualitative data was elicited to enhance, clarify, and add “community voices” and real life experiences to the quantitative data included in this report. Qualitative data was gathered via focus groups with community members and through interviews with community members and community leaders. Focus groups and interviews were conducted between April and June 2013. Those responsible for gathering qualitative data made every effort to ensure racial/ethnic, socioeconomic and geographic diversity in the composition of focus groups and interview participants. The findings of the Focus Groups and Key Informant Interviews are synthesized and recorded within the body of this report.

V. Key Findings

A. Demographics

Overall Population

According to the 2010 Census, the MPH region has a total population of 155,946. The five largest communities in the region are the cities of Leominster (40,759), Fitchburg (40,318) and Gardner (20,228) and the towns of Clinton (13,606) and Athol (11,584). The 3 smallest towns are Royalston (1,258), Phillipston (1,682) and Princeton (3,413).

From 2000-2010, the MPH region as a whole experienced a growth of 2,846 people, for a growth rate of 1.9%. For comparative purposes, the Commonwealth of Massachusetts experienced a 3.1% growth rate and Worcester County evidenced a 6.3% growth rate during this time period. As a whole, the MPH region grew at a rate that was lower than the Commonwealth as a whole and less than a third of the rate experienced overall by Worcester County.

Age

The median age in the Commonwealth in 2010 was 39.1 years. Of the cities/towns in the MPH region, only Fitchburg, with a median age of 34.7 had a younger median age than the State. Most of the cities/towns had median ages similar to that of the Commonwealth. The oldest median ages

were found in the towns of Princeton (median age of 46.8), Royalston (median age of 45.6) and Sterling (median age of 44).

Another important way of reporting on population statistics is called the dependency ratio. The dependency ratio is calculated as the sum of the population less than 15 and the population greater than 64 years of age, divided by the number of people between 15 and 64 years old in the population. It is designed to measure the dependent population (children and the elderly) as a proportion of the working population. As the ratio increases there may be an increased burden on the productive part of the population to maintain the upbringing and pensions of the economically dependent. The dependency ratio for the Commonwealth of Massachusetts was 45.9%. The MPHNN region as a whole was 43%. Within the MPHNN region, dependency ratios higher than that of the state were found in Athol (50.7%), Gardner (46.5%), Leominster (48.7%), Sterling (49.4%) and Templeton (48.7%).

Race/Ethnicity

Black/African American Population

According to the 2010 Census, the Black/African American population comprises 6.6% of the State's population. The MPHNN entities with the most Blacks or African Americans as a percent of total population in 2010 were Fitchburg and Leominster, both at 5.1%. The MPHNN entities with the fewest Blacks or African Americans as a percent of total population in 2010 were the towns of Princeton (0.5%), Royalston (0.6%), Sterling (0.7%) and Templeton (0.7%).

Overall, Blacks or African Americans made up a smaller percentage of the total population in each of the reporting regions than they did in the Commonwealth as a whole. The majority of the Black or African American population in the MPHNN service area resides in the cities of Fitchburg, Leominster and Gardner and the town of Clinton.

Within Massachusetts, the Black or African American population increased during the time period of 2000 to 2010 from 5.4% of the State's population to 6.6%. All of the cities/towns in the MPHNN service area also experienced an increase in their Black or African American populations during this time period.

Hispanic/Latino Population

According to the 2010 Census, the Hispanic/Latino population comprises 9.6% of the State's population. The MPHNN entities with the most Hispanics or Latinos as a percent of total population in 2010 were Fitchburg (21.6%), Leominster (14.5%) and Clinton (13.6%). The MPHNN entities with the fewest Hispanics or Latinos as a percent of total population in 2010 were Princeton (1.4%), Templeton (1.9%) and Sterling (2.0%).

Overall, Hispanics or Latinos made up a larger percentage of the total population in Fitchburg, Leominster and Clinton in 2010 than they did in the Commonwealth as a whole, with Fitchburg's Hispanic or Latino population at more than twice the Commonwealth's when measured as a percent of population.

Within Massachusetts, the Hispanic or Latino population increased during the time period of 2000 to 2010 from 6.8% of the Commonwealth's population to 9.6%. All of the cities and towns in the

MPHN Service Area also experienced an increase in their Hispanic or Latino populations during this time period.

Asian Population

According to the 2010 Census, the Asian population comprises 5.3% of the State's population. The MPHN communities with the most Asians as a percent of total population in 2010 were Fitchburg (3.6%) and Leominster (2.8%). The MPHN entities with the fewest Asians as a percent of total population in 2010 were Phillipston and Templeton both at 0.5% and Athol and Royalston both at 0.7%.

Overall, all of the cities/towns in the MPHN service area had fewer Asians as a percent of total population in 2010 than did the Commonwealth as a whole. Within Massachusetts, the Asian population increased during the time period of 2000 to 2010 from 3.8% of the Commonwealth's population to 5.3%. Most of the cities and towns in the MPHN Service Area also experienced an increase in their Asian populations during this time period. However, the Asian population in Gardner remained steady at 1.4% of the population, while the Asian populations in Fitchburg and Westminster actually decreased during this time period from 4.3% of the population to 3.6% in Fitchburg and from 1.1% to 1% in Westminster.

B. Socioeconomics

Income and Poverty

In Massachusetts, the per capita income in 2010 was \$33,996 and the median household income was \$64,509. Within the MPHN service area only Princeton (\$42,165) and Sterling (\$43,372) had per capita incomes that were higher than the Commonwealth and Princeton (\$102,853), Sterling (\$102,115), Westminster (\$79,073), Phillipston (\$70,493) and Templeton (\$66,138) had median household incomes greater than that of the Commonwealth.

Among the cities and towns within the MPHN region, there is a wide range in the proportion of people living below 100% of the poverty level. The communities with the largest proportion of population below 100% of the poverty level in 2010 were Fitchburg at 19.4% (up from 15% in 2000) and Gardner at 11.4% (up from 9.6% in 2000) compared to 10.5% in the State at (up from 9.3% in 2000). Westminster and Clinton are noteworthy due to increases in the proportion of their populations living below 100% of the poverty level, with Westminster seeing a 45% increase and Clinton seeing a 20% increase from 2000 to 2010.

The lowest poverty rates in the region in 2010 were found in Princeton at 1.2% (down from 4.4% in 2000; a decrease of 73%) and Sterling at 3% (up slightly from a rate of 2.9% in 2000). The poverty rates in Royalston and Phillipston are also noteworthy due to their drop from 2000 to 2010, with Royalston experiencing a 53% decrease in its poverty rate and Phillipston experiencing a 40% decrease.

When families with related children under the age of 18 are considered, the poverty rates in the State and region are even higher. In 2000, 10.1% of families with related children under the age of 18 in the Commonwealth were living below 100% of the poverty level. By 2010, that number had increased to 11.5% of families with children in the Commonwealth.

Within the MPHN service area, Fitchburg had the highest rate of families with children living below 100% of poverty at 23.8%, more than double the rate of the Commonwealth. Fitchburg experienced a 29% increase in this rate between 2000 and 2010.

Gardner's poverty rate among families with children rose by 44% between 2000 and 2010, from 10.5% to 15.1%, while Clinton's poverty rate more than doubled between 2000 and 2010 to 11.8%. Leominster (11.8%) also reported a higher poverty rate among families with children than the Commonwealth. Westminster is noteworthy due to a 94% increase in the proportion of families with children living below 100% of the poverty level.

The lowest poverty rate in the region in 2010 for families with related children under the age of 18 was found in Phillipston at 0.0% (down from 5.5% in 2000). Sterling had a low poverty rate among families with children at 1.2% in 2010 (down 56% from a rate of 2.7 in 2000). The poverty rates in Royalston and Princeton are worthy of note due to their drop from 2000 to 2010, with Royalston experiencing a 54% drop in its poverty rate and Princeton experiencing a 43% decrease.

Unemployment

Many factors contribute to poverty among individuals and families. The financial crisis of 2008-2010 brought with it significant rates of unemployment across Massachusetts and the MPHN region, in particular. While rates have recovered to some degree over the past two years, the following data illustrates the ongoing impact of unemployment in the region. As of March 2013, the unemployment rate in Massachusetts was 6.8%, down 0.9 percentage points from the rate of 7.7% in March 2011. Overall, the unemployment rate in the MPHN service area was 9.2% in March 2013, 2.4 percentage points higher than that of the Commonwealth as a whole.

At both time periods, Fitchburg experienced the highest unemployment rate in the region, with a rate of 11.6% in March 2011 (3.9 percentage points above the State) and a rate of 10.2% in March 2013 (3.4 percentage points above the State). Athol, Clinton, Gardner and Leominster also reported unemployment rates of over 10% in March 2011 and over 9% in March 2013, all considerably higher than the Commonwealth. The positive news is that all of these entities reported a decrease in unemployment between March 2011 and March 2013, with Gardner and Leominster each reporting drops in unemployment rates of 1.2 percentage points.

All of the cities and towns in the MPHN service area experienced a drop in unemployment rates between March of 2011 and March of 2013, with the exception of Princeton. Princeton's comparatively low unemployment rate of 6.2% in March 2011 rose slightly to 6.5% in March 2013, still staying below the unemployment rate of the Commonwealth and all of the other communities in the MPHN region except Sterling (7.0% in March 2011 and 6.0% in March 2013).

Transportation

The region is connected primarily by major state and interstate highways including Routes 2, 12, 190, and 495, along with the commuter rail line. Service along the Fitchburg line to North Station in Boston terminates at the Fitchburg Commuter Rail Station. However, there are planned improvements to this service. The proposed Fitchburg Commuter Rail Extension—Wachusett Station and Layover Facility is an expansion of passenger rail service approximately 4.5 miles west on the existing Fitchburg Commuter Rail Line. Planned improvements to the rail corridor will benefit both passenger rail service and freight operations by upgrading one of two main line tracks to

passenger service standards. This Rail Extension Project will allow for the smooth operations of both freight and commuter rail, with the freight company dispatching all service and the MBTA maintaining the shared signals and track. There are also three active municipal airports in Fitchburg, Gardner, and Sterling.

The majority of transit services in the region are run or administered by the Montachusett Regional Transit Authority (MART). The local transit bus service is the most prominent method of public transportation in the region and is available in Fitchburg, Leominster, and Gardner. MART's population has neighborhoods around its fixed route services, particularly in the areas near the downtown locations of the three cities of Fitchburg, Leominster and Gardner, which fall between 16 and 35% below the poverty level. Bus service operated by MART and the Franklin Regional Transit Authority is also available along Route 2-2A between Greenfield and Gardner for the communities of towns of Athol, Orange, Gardner, Phillipston, Templeton, and along Routes 68/202 between Gardner and Winchendon. Paratransit services include curb-to-curb transportation for citizens with disabilities who are eligible under the criteria of the Americans with Disabilities Act in the Gardner and Fitchburg/Leominster area. Other transportation programs include Subscription Service, Job Access Reverse Commute, Shuttle Van Service, Dial-A-MART Van Service, and Self Funded Services. Detailed information concerning these programs can be found on the MART web-site www.mrta.us.

Education/Educational Attainment

There are nine school districts represented within the MPH N region, including one major regional vocational technical school.

School Districts in MPH N Service Area

School District	Type	MPH N Cities/Towns Served
Ashburnham-Westminster	Regional PK – 12	Westminster
Athol-Royalston	Regional PK – 12	Athol & Royalston
Clinton	Local PK – 12	Clinton
Fitchburg	Local PK – 12	Fitchburg
Gardner	Local PK – 12	Gardner
Leominster	Local PK – 12	Leominster
Montachusett Regional Vocational Technical	Regional Vocational Technical 9 - 12	Athol, Fitchburg, Gardner, Phillipston, Princeton, Royalston, Sterling, Templeton & Westminster
Narragansett	Regional PK – 12	Phillipston & Templeton
Wachusett	Regional PK – 12	Princeton & Sterling

Enrollment Indicators

Enrollment by racial/ethnic group shows that the percentage of Black/African American, Hispanic/Latino and Asian students is lower in all districts than in the Commonwealth with the exception of Hispanics/Latinos in Fitchburg (44.6%), Leominster (26.8%) and Clinton (20.2%) (compared to 16.4% in the State).

Not surprisingly, these same three districts also have higher percentages of students for whom English is not their first language. Thirty-two percent of Fitchburg students, 18.8% of Clinton students and 18.2% of Leominster students (vs. 17.3% of students in the State) speak a language other than English in the home.

Five of the school districts within the MPHN service area had much higher percentages of low income students in 2012 – 2013 than the State average of 37%. The highest percent of low income students was found in Fitchburg at 76.9%, more than twice that of the Commonwealth as a whole. Athol-Royalston Regional at 57%, Gardner at 55.9%, Clinton at 48.9% and Leominster at 46.3% also had rates of low income students which were higher than that of the State. The school districts with the fewest low income students were Wachusett Regional, with 8.4% of students described as low income, Ashburnham-Westminster Regional with 19.7% and Narragansett Regional with 25.5% low income students.

The same five school districts reporting higher percentages of low income students than the State also reported higher percentages of students eligible to receive free lunches. Fitchburg had the highest percent of students eligible to receive free lunches at 70.9%, followed by Athol-Royalston Regional at 47.5%, Gardner at 46.4%, Clinton at 40.5% and Leominster at 37.5%. The school districts with the fewest students eligible to receive free lunches were Wachusett Regional, with 6.5%, Ashburnham-Westminster Regional with 14.9% and Narragansett Regional with 19.5% of students eligible to receive free lunches.

Discipline

For the academic year 2012-2013, the State had an overall suspension rate (i.e., combined in- and out-of-school) of 8.8 per 100 students. All of the school districts in the MPHN region, except Ashburnham-Westminster Regional and Wachusett Regional, had combined suspension rates greater than that of the Commonwealth. These two districts had combined suspension rates of 3.2 and 3.5 per 100 students, respectively. The highest total suspension rate in the region was reported at the Montachusett Regional Vocational Technical School, with a rate of 28.3. Fitchburg reported 24.5 suspensions per 100, while Gardner had 17.2 and Clinton had 14.6 total suspensions per 100 students.

Graduation/Drop Out

In 2012, five of the 9 school districts within the MPHN service area had four year graduation rates higher than that of the Commonwealth (84.7%), with 3 of them reporting graduation rates of over 90%. The highest graduation rates in the region were seen in Ashburnham-Westminster Regional at 95.3%, Montachusett Regional Vocational Technical at 94.7% and Wachusett Regional at 91.9%. In contrast, 4 MPHN school districts reported graduation rates lower than the State. The lowest graduation rates were reported in Fitchburg at 74.3%, Gardner at 74.6%, Athol-Royalston Regional at 74.8% and Clinton at 80%.

In 2012, six of the 9 school districts within the MPHN service area reported dropout rates lower than the State (6.9%). The lowest drops out rates were reported at Montachusett Regional Vocational Technical at 0.6%, Wachusett Regional at 1.8% and Ashburnham-Westminster Regional at 2.1%, all less than one-third of the overall rate in the Commonwealth. In contrast, 3 of the MPHN school districts reported dropout rates higher than the State. The highest dropout rate was seen in Athol-Royalston Regional at 16%, followed by Gardner at 13.9% and Fitchburg at

13.5%. The dropout rates in Athol-Royalston Regional and Gardner were more than twice that of the State overall.

Adult Educational Attainment

When considering the educational attainment of all residents age 25 and over, the 2010 census found that within Massachusetts, 11.3% of residents aged 25 and over had no high school diploma. Within the MPH N service area the highest percentages of residents age 25 and over with no high school diploma were found in Gardner at 18%, Fitchburg at 15.6% and Athol at 15.3%. The lowest rates of residents aged 25 and over without a high school diploma in the region were reported in Princeton at 2.2%, Sterling at 4.3% and Royalston at 6.7%.

In Massachusetts, 54% of residents 25 years and older had a high school diploma or less. With the exception of Princeton (30.6%) and Sterling (37.6%), all communities within the MPH N had higher percentages than the State of adults with a high school diploma or less, with the highest percentages found in Athol at 75.1%, Gardner at 70.5% and Fitchburg at 70.1%.

C. Health Disparities and Health Equity

“Differences in the incidence and prevalence of health conditions and health status between groups is commonly referred to as health disparities. Most health disparities affect groups marginalized because of socioeconomic status, race/ethnicity, sexual orientation, gender, disability status, geographic location, or some combination of these. People in such groups not only experience worse health but also tend to have less access to the social determinants or conditions (e.g., healthy food, good housing, food education, safe neighborhoods, freedom from racism and other forms of discrimination) that support health.”¹

Given the demographic and socioeconomic characteristics described above, we would expect a greater prevalence of health conditions and poorer health status among residents of the MPH N region than the Commonwealth as a whole. The following findings related to the MPH N’s priority areas of: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity and the general health characteristics of the region are consistent with that expectation.

D. MPH N Priority Areas

Mental Health and Substance Abuse

Child

In Massachusetts in 2011 – 2012, 1.4% of the students enrolled in the public school districts were enrolled in Special Education on the basis of an emotional disability. Within the school districts in the MPH N region, Athol-Royalston Regional reported the highest percent of students enrolled in special education due to emotional disabilities at 3.7%, 2.6 times that reported by the State.

¹ Brennan Ramirez LK, Baker, EA, & Melzler, M. Promoting Health Equity: A Resource to Help Communities Address Social Determinants of Health, Atlanta: U. S Department of Health & Human Services, Centers for Disease Control and Prevention; 2008.

Fitchburg at 2.3% and Gardner at 2.1% also had percentages higher than that of the Commonwealth. The lowest percentages of students enrolled in special education due to emotional disabilities were reported in Narragansett Regional at 0.3%, Montachusett Regional Vocational Technical at 0.5% and Wachusett Regional at 0.8%.

According to the Youth Risk Behavior Survey, a higher percentage of youth in North Central Massachusetts (27.9%) report feeling sad or hopeless than across the Commonwealth (25%) but less than in the United States (28.5%). In addition, while a lower percentage of youth in North Central Massachusetts (37.6%) report using alcohol than their peers across the State (40%) and Nation (38.7%), a higher percentage of MPH N youth report using all other types of drugs (i.e., cocaine, inhalants, heroin, methamphetamine, ecstasy, steroids and prescription drugs) than their peers in Massachusetts and the United States.

Adult

The Mental Disorder Mortality Rate is based on a wide range of mental and behavioral disorders, including dementia, delirium, brain damage, schizophrenia, mood (affective) disorders, neuroses, personality disorders, bipolar disorders, obsessive compulsive disorders and others. In Massachusetts in 2011, the age-adjusted Mental Disorder Mortality Rate was 44.3 per 100,000. Within the MPH N region, the rate was 36.4 per 100,000, lower than that of the Commonwealth. The Western Towns at 54.1 was the only reporting region in the MPH N service area to report a Mental Disorder Mortality Rate higher than the State during this time period. The lowest age-adjusted Mental Disorders Mortality Rate was reported in Clinton at 23.9, followed by Leominster at 28.8.

According to the Behavioral Risk Factor Surveillance System (BRFSS), 17.3% of adults over age 18 in Massachusetts reported binge drinking within the last 30 days. In the Athol area (CHNA 2) the percentage was slightly higher (18%), while in the Fitchburg/Leominster/Gardner Area (CHNA 9) the percentage was slightly lower (17.1%). Additionally, within Massachusetts, 16.2% of adults over age 18 reported smoking. Tobacco use in the Athol area and the Fitchburg/Leominster/Gardner area was higher than the State at 19.9% and 18.6%, respectively. Across the Commonwealth and in the MPH N region, smoking rates were highest among males with lower levels of education.

According to MassCHIP, during the 2005 – 2010 timeframe, the age-adjusted Opioid-related Overdose Mortality Rate was 9 per 100,000. Within the MPH N region, the rate was 10 per 100,000, higher than that of the Commonwealth. Two of the reporting regions in the MPH N reported an Opioid-related Overdose Mortality Rate higher than the State during this time period. Fitchburg had the highest Opioid-related Overdose Mortality Rate in the region at 14.8, followed by Clinton at 12.1.

Consistent with the quantitative data presented in this section, substance abuse was seen as a significant problem among Focus Group participants and Key Informant Interviewees. The majority of Focus Group participants talked emphatically (e.g., “Yes!”, “Absolutely,” “It is huge.”) about substance abuse being a problem in their communities. Most groups talked about “access” as the leading cause for drug use. Other causes included “unemployment,” “boredom,” and “loneliness.” Approximately 50% of Focus Groups participants specifically mentioned concerns about young people. Lack of parental oversight and “nothing else for youth to do” were also talked about as a reason for substance abuse being a problem among youth.

Suicide

Child

Youth Risk Behavior Survey data presented above indicate that youth in North Central Massachusetts evidence lower rates of depression than their counterparts across the Nation, but higher rates than their counterparts in the State. Data presented here related to suicide show that a greater number of North Central youth (16.2%) have considered and taken actions toward suicide than their peers in Massachusetts and the United States. Specifically, during the 12 months prior to the survey:

- 16.2% of area high school youth seriously considered suicide versus 13% of Massachusetts and 15.8% of US youth;
- 14.0% of area youth developed suicide plans versus 12% of Massachusetts and 12.8% US youth;
- 10.1% of area high school youth attempted suicide at least one time versus 7% of Massachusetts and 7.8% of US youth; and
- 4.4% of area high school youth attempted suicide in such a way that they needed medical treatment versus 2% of Massachusetts and 2.4% of US youth.

Within Massachusetts, for the timeframe 2005 – 2010, the age-adjusted Suicide Mortality Rate for youth ages 0-19 years was 1.3 per 100,000. The age-adjusted rates for youth ages 0-19 years for all MPHNN reporting regions (for which at least one suicide was reported) were higher than the State. Gardner's rate, 6.6, was more than 5 times the State's. Interestingly, within the State there were no suicides among children less than 10 years old and in the MPHNN region there were no suicides reported among children less than 15 years old.

Adult

The age adjusted Suicide Mortality Rate in Massachusetts in the 2005 – 2010 timeframe was 7.4 per 100,000. Within the MPHNN region, the rate was 8.3. Within the reporting regions of the MPHNN service area, four communities exhibited a Suicide Mortality Rate higher than the State during this time period. Gardner had the highest Suicide Mortality Rate at 13.6, followed by the Western Towns at 9.6, Clinton at 9.4 and Fitchburg at 7.7. The lowest age-adjusted Suicide Mortality Rates were reported in the Eastern Towns (4.8) and Leominster (6.8).

Within the Commonwealth, the age-adjusted Suicide Mortality Rate for 2005 – 2010 was much higher for males at 12 per 100,000 than for females at 3.3. This trend was also true for the MPHNN region as a whole and for all of the reporting regions, except for the Eastern Towns where men had a rate of 3.5 and women had a rate of 5.9.

In Massachusetts, the highest age-specific Suicide Mortality Rate per 100,000 was reported among people ages 40 – 59, followed by 20 – 39 year olds, people ages 60 and over and those 19 years old and younger. Within the MPHNN region as a whole, the age-specific Suicide Mortality Rate followed a similar pattern. However, the rates were higher for all of the age groups except for 60+.

Consistent with the quantitative data presented in this section, suicide was identified among Focus Groups participants and Key Informant Interviewees as an issue in the area. The majority of Focus

Groups participants talked about suicide being a big problem. Key Informant Interviews revealed that suicide has had a recent impact in every MPH community.

Overweight/Obesity

According to the Centers for Disease Control and Prevention, a person is considered overweight if his/her BMI for age percentile is greater than or equal to the 85th percentile but less than the 95th percentile and a person is considered obese if his/her BMI for age percentile is equal to or greater than the 95th percentile.

Child

In 2010 in Massachusetts, 33% of the students in public school districts were considered to be overweight or obese. Some of the school districts within the MPH had overweight or obesity percentages higher than that of the State. The school district with the highest overall percent of overweight and obese students was Montachusett Regional Vocational Technical School at 43%, followed by Fitchburg at 40% and Gardner at 35%. The school district with the lowest overall percent of overweight and obese students was Ashburnham-Westminster Regional at 32%, the only school district in the MPH region to have a combined overweight and obesity rate lower than the State.

In the State and in most of the school districts represented in the MPH, there was a higher percentage of overweight and obesity among males than females. The exceptions were Gardner, which had a higher percentage of overweight and obese female students than male students, and Montachusett Regional Vocational Technical School where the rates for male and female students were equal.

It is interesting to compare the data presented above with area youths' self-reports of issues related to overweight/obesity. Data from the *2011 Youth Risk Behavior Survey* show that 30.2% of area high school youth in North Central Massachusetts consider themselves to be "overweight". This percentage is relatively close to the overall percentage of youth whose Body Mass Index classified them as either "overweight" or "obese."

Almost half (43.5%) of area youth reported that they were trying to lose weight. Nearly sixty percent (59.5%) reported exercising and 38.8% reported eating fewer calories to lose weight or keep from gain weight. These numbers are consistent with those reported at the State and National levels. In contrast, MPH area youth reported higher rates of "more drastic" measures to control their weight. Specifically, 13.6% reported not eating for 24 hours or more to control their weight versus 10% and 12.2% across the State and Nation, respectively. Ten percent (10.0%) reported taking diet pills, powders or liquids to lose weight or keep from gaining weight versus 4.0% in Massachusetts and 5.1% in the United States. And, 9.6% reported vomiting or taking laxatives to control their weight versus 5% and 4.3% across the State and Nation, respectively. With respect to physical activity, a key component to achieving and maintaining a healthy weight, area youth self-reported meeting recommended daily physical activity levels and participating on organized sports teams at rates lower than their peers across the State and Nation.

Adult

According to the Behavioral Risk Factor Surveillance System (BRFSS), within Massachusetts, 57.7% of adult respondents during the 2005 – 2010 time period reported being overweight. Within both the Athol area (CHNA 2) and the Fitchburg/Leominster/Gardner area (CHNA 9), this percentage was higher at 58.4% and 60.5%, respectively. Similarly, the percentage of adults who reported being obese was higher in the Athol area (25.1%) and the Fitchburg/Leominster/Gardner area (23%) than the State (21.6%).

Rates of overweight and obesity among adults in Massachusetts and the MPH region tend to be higher among males (with the exception of obese females in the Athol area) and those ages 50-64 (with the exception of overweight people ages 35-49 in the Athol area). With regards to physical activity, 52.3% of adult respondents to the BRFSS across Massachusetts in 2005 – 2010 timeframe reported having been involved in regular physical activity. In the Athol area this percentage was considerably higher at 62.3%, while in Fitchburg/Leominster/Gardner area it was slightly lower at 51.3%.

Rates of participation in physical activity among adults in Massachusetts and the MPH region tend to be higher among males than females and tend to decrease with age (with the exception of people ages 18-34 in the Fitchburg/Leominster/Gardner area who reported lower rates of physical activities than those in the 35-49 and 50-64 age groups).

Consistent with the quantitative data presented in this section, obesity was highlighted as a major concern among Focus Group participants, with approximately 50% highlighting obesity as a significant personal health issue and a majority highlighting it as a major community health issue. Specifically, access, both geographic and financial, to healthy food and the need to understand and address obesity in culturally appropriate ways were highlighted in almost all the groups. There was also an awareness of the role of public health, schools, community organizations and local government in decreasing obesity through education and awareness as well as policy, systems, and environmental changes.

E. General Health Characteristics

Maternal/Child Health

Fertility

Massachusetts had a fertility rate, defined as age-adjusted births per 1000 women ages 15 – 44, of 55.1 for the period of 2008 – 2010. The MPH region as a whole had a fertility rate, slightly higher than the state, of 58 during the same time period. Within the MPH service area, the highest fertility rates were reported in Clinton at 64.2 and Fitchburg at 64.1. The lowest fertility rates were reported in Westminster (34.3) and Phillipston (34.9).

In Massachusetts from 2008 – 2010, 5.8% of all births were to young women ages 15 – 19 years. This represented an age specific birth rate of 18.9 per 1000. The MPH region as a whole reported 8.3% of all births to women ages 15 – 19 years for an age specific birth rate of 29.6, a rate 1.6 times that of the State. Within the reporting regions in the MPH, Gardner had the highest percentage of all births to young women ages 15 – 19 years at 11.9%, more than twice the

percentage reported by the Commonwealth. Fitchburg at 10.4%, Leominster at 7%, the Western Towns at 6.9% and Clinton at 6.7% also reported higher percentages of births to young mothers than the State.

Of the births to young mothers in the Commonwealth, 43.8% were to White, non-Hispanic mothers, 37.4% were to Hispanic mothers, 13.1% were to Black mothers, and 3.1% were to Asian mothers. In the MPH region, 60% of the births to young women were to White, non-Hispanic mothers, 32.8% were to Hispanic mothers, 3.8% were to Black mothers, and 1.5% were to Asian mothers. Within the individual cities and towns of the MPH, Fitchburg reported that 50.5% of its births in the 15 – 19 age group were to Hispanic women for a rate of 83.4 (1.4 times the State rate of 59.0) and Gardner reported 10.2% of its births in the 15-19 age group were to Hispanic women for a rate of 72.3 (1.2 times the State rate of 59.0).

Within Massachusetts, 6.7% of births in the 2008 – 2010 period were to women who smoked during pregnancy. Within the MPH region as a whole, 13.2% of births were to women who smoked during pregnancy, almost twice the rate reported in the Commonwealth. In the MPH service area, all of the reporting regions, except the Eastern Towns, reported higher percentages of births to mothers who smoked cigarettes than did the State. In Gardner 19.5% of births were to mothers who smoked during pregnancy, almost 3 times the State. Cigarette smoking rates among pregnant women was also high in Fitchburg with 16.9% and the Western Towns with 15.3% of births to mothers who smoked cigarettes during pregnancy. Within the individual cities and towns of the MPH, Athol had the highest percentage of births to mothers who smoke at 21.2%, 3.2 times the State.

Infant/Child Health

The Infant Mortality Rate is defined as the number of deaths of infants (less than one year of age) per 1000 live births. In Massachusetts in the 2008 – 2010 time period, the Infant Mortality Rate was 4.7. Within the MPH region, the Infant Mortality Rate at 5.7 was higher than that of the Commonwealth. Gardner had the highest Infant Mortality Rate within the reporting regions at 12.2 (2.6 times the State rate), followed by the Western Towns at 5.6 and Leominster at 5.4. Within Massachusetts in the 2008– 2010 time period, 1.4% of children screened for lead paint had elevated blood lead levels (defined as ≥ 15 $\mu\text{g/dL}$). Within the MPH region, this percentage was 1.7%, 21.4% higher than that of the Commonwealth. Within the reporting regions in the MPH service area, the Western Towns had the highest percentage of children with elevated blood lead levels at 2.8%, twice the percentage reported by the Commonwealth. Gardner at 2.5% and Fitchburg at 2.2% also had high percentages of children screened who had elevated blood lead levels. The lowest percentages of children with elevated blood lead levels were found in Leominster and the Eastern Towns, both at 0.7% of children screened.

Mortality

According to the MDPH, Health Information, Statistics, Research and Evaluation Bureau, the Premature Mortality Rate (PMR) is an excellent, single measure of the health status of a community. PMR is related not only to health care, but also to the social determinants of health such as socioeconomic status, housing, educational levels, environmental conditions and racism, as well as risk factors such as smoking, substance abuse and obesity. Within Massachusetts, the age-adjusted PMR for the 2008-2010 time frame was 279.6 per 100,000. Within the MPH region as a whole, the age adjusted PMR was 342 or 1.2 times that of the Commonwealth. Most of the

reporting regions had age-adjusted PMR higher than that of the State. The highest PMR was reported in Fitchburg at 391.5, followed by Clinton at 381 and the Western Towns at 359.6. The only reporting region in the MPH service area with an age-adjusted PMR lower than that of the Commonwealth was the Eastern Towns at 232.2.

The age-adjusted Premature Mortality Rate (PMR) in Massachusetts varied by racial/ethnic group over the 2008 – 2010 time period. The highest age-adjusted PMR was reported for Black, non-Hispanics at 404.2, followed by White, non-Hispanics at 278.2, Hispanics at 249.2, and Asians at 146.6. Within the MPH region as a whole, the PMR was higher for each of these major racial/ethnic groups. In the MPH area, the highest age-adjusted PMR was reported for Black, non-Hispanics at 436.3, followed by Hispanics at 356.8 and White, non-Hispanics at 343. The PMR for Asians in the MPH region was suppressed due to small numbers.

Age-adjusted cancer, cardiovascular, cerebrovascular and diabetes mortality rates for the MPH region as a whole were equal to or higher than the Commonwealth.

Specific mortalities with particularly high rates per 100,000 in MPH communities include:

- lung cancer in Fitchburg (63.8), the Western Towns (63.5) and Leominster (61.9) (versus a State rate of 48.3),
- breast cancer in the Eastern Towns (51.2, nearly 2.5 times the State rate of 20.8)
- cardiovascular in Templeton (360.4, nearly 1.8 times the State rate of 200.6),
- cerebrovascular in Leominster (72.4) and Fitchburg (65.9) (both more than twice the State rate of 32), and
- diabetes in Fitchburg (33.6, nearly 2.5 times the State rate of 13.6)

Infectious Disease

Infectious disease rates in the MPH region tend to be lower than across the Commonwealth:

- From 2007 - 2009, the crude prevalence rate of HIV/AIDS in the Commonwealth increased from 255.8 to 261 per 100,000, an increase of 4.3 %. In the MPH region as a whole, the prevalence of HIV/AIDS increased by 2.7% during this time period from 220 to 226. Fitchburg had the highest HIV/AIDS crude prevalence rate in the region in 2009 at 246.8, followed by Leominster at 163.8, Clinton at 150, Gardner at 143.2 and Westminster at 81.5.
- From 2007 - 2009, the incidence of new cases of Hepatitis C reported in Massachusetts increased from 61.5 to 68 per 100,000. Within the MPH region, only Gardner consistently reported a higher Hepatitis C incidence rate than did the Commonwealth in each of the three years reported. In addition, unlike the State, which had a decrease in its Hepatitis C incidence rate from 2008 to 2009, Gardner's rate continued to climb to 124.1, 1.8 times that of the Commonwealth. Athol also experienced steady increases in its Hepatitis C incidence rate over the 3 year period, reporting a rate of 119.8 in 2009 that was 1.8 times that reported by the State.
- From 2008 – 2010, the incidence of new cases of Chlamydia reported in Massachusetts increased from 268.3 to 324.4 per 100,000. Within the MPH region, only Leominster consistently reported a higher Chlamydia incidence rate than did the Commonwealth in each of the three years reported. In 2010, Leominster's rate of 471.1 was 1.5 times that of the Commonwealth. Fitchburg is notable in that its Chlamydia incidence rate in 2008 was higher than that of the State. However, unlike the State, whose rate continued to climb in 2009 and 2010, Fitchburg's rate decreased.

Primary Care Manageable Hospitalizations

Asthma

During the 2007 – 2009 time period, the age-adjusted Asthma Hospitalization Rate for Massachusetts was 155.5 per 100,000. Within the MPH region as a whole, the rate was similar at 155.4. Two of the reporting regions in the MPH service area had age-adjusted Asthma Hospitalization Rates higher than the State, with the highest rate reported in Gardner at 223.1 (1.4 times the rate reported in the Commonwealth), followed by Fitchburg at 197.3.

Within the Commonwealth, the age-adjusted Asthma Hospitalization Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 392 per 100,000, followed by Hispanics at 341.8, White, non-Hispanics at 117.2, and Asians at 77.8. Within the MPH region as a whole, the age-adjusted Asthma Hospitalization Rate was lower for Black, non-Hispanics and Hispanics than that reported by the State, but higher for White, non-Hispanics. Within individual reporting regions of the MPH, the highest age-adjusted Asthma Hospitalization Rate was reported among Black, non-Hispanics in Gardner, at 550.3 or 1.4 times the rate reported for Black, non-Hispanics in the Commonwealth. The highest age-adjusted Asthma Hospitalization Rate among Hispanics in the region was reported in Fitchburg, at 453.6 or 1.3 times the rate reported for Hispanics in the Commonwealth.

Asthma Hospitalization Rates also vary by age. Within the Commonwealth the highest rates were found among children less than 5 years old at 429.7 per 100,000, followed by adults 65 and over at 259.8 and 5–64 year olds at 117.8. Within the MPH region as a whole, the rates followed a similar pattern with the highest age-adjusted Asthma Hospitalization Rate reported in the under 5 age group at 276.9, followed by the 65 year plus age group at 266.3 and the 5 – 64 age group at 131.4. The highest age-adjusted Asthma Hospitalization Rate in the region reported among children under 5 was in Gardner, at 555.3 or 1.3 times the rate in the Commonwealth for this age group. The highest age-adjusted Asthma Hospitalization Rate for 5 – 64 year olds was also reported in Gardner at 193.2 or 1.6 times the State rate for this age group. The highest age-adjusted Asthma Hospitalization Rate for adults 65 years old and over was reported in Fitchburg at 325.5, 1.3 times the State rate for this age group.

Angina

During the 2007 – 2009 time period, there Massachusetts had an age-adjusted Angina Hospitalization Rate of 11.9 per 100,000. Within the MPH region, the rate was 13.4, higher than that of the Commonwealth as a whole. Three of the reporting regions in the MPH service area had age-adjusted Angina Hospitalization Rates higher than the State, with the highest rate reported in the Western Towns at 19.4 (1.6 times the rate reported in the Commonwealth), followed by Fitchburg at 17.1 and Gardner at 14.8. The lowest age-adjusted Asthma Hospitalization Rate was reported in Leominster at 9.1. At the individual community level, Athol had a very high age-adjusted Angina Hospitalization Rate of 29.5, approximately 2.5 times that of the Commonwealth.

Bacterial Pneumonia

During the 2007 – 2009 time period, the age-adjusted Bacterial Pneumonia Hospitalization Rate in Massachusetts was 300.7 per 100,000. Within the MPH region, the rate was 341.4, higher than that of the Commonwealth. Most of the reporting regions had age-adjusted Bacterial Pneumonia

Hospitalization Rates higher than the State, with the highest rates reported in the Western Towns at 441.9 (1.5 times that of the State) and Gardner at 429.7 (1.4 times that of the State). The lowest age-adjusted Bacterial Pneumonia Rate was reported in Fitchburg at 290.7. Fitchburg was the only reporting region in the MPH service area to report a rate lower than that of the Commonwealth. Many of the individual communities in the MPH region had age-adjusted Bacterial Pneumonia Hospitalization Rates higher than that of the State, with Royalston (544.2), Sterling (514) and Phillipston (463.7) reporting the highest rates.

Chronic Conditions

According to the Behavioral Risk Factor Surveillance System (BRFSS), adults over 25 reported the following for the time period 2005 - 2010:

- Within Massachusetts, 7.1% of respondents reported that they had or currently have diabetes (Type 1 or Type 2). Within both the Athol area (CHNA 2) and the Fitchburg/Leominster/Gardner area (CHNA 9), this percentage was lower at 5.9% and 6.3%, respectively.
- Within Massachusetts, 25.8% of respondents reported that they had been diagnosed with high blood pressure in their lifetimes. Within the Athol area, this percentage was higher at 29.1%, while it was lower in the Fitchburg/Gardner/Leominster area at 24.5%.
- Within Massachusetts, 35.7% of respondents reported that they had been diagnosed with high cholesterol in their lifetimes. Within both the Athol area and the Fitchburg/Leominster/Gardner area, this percentage was lower at 33.1% and 34.5%, respectively.
- Within Massachusetts, 15% of respondents reported that they had been diagnosed with asthma in their lifetimes. Within both the Athol area and the Fitchburg/Leominster/Gardner area this percentage was higher at 17.3% and 16.1%, respectively.
- Within Massachusetts, 20.4% of respondents reported having a disability. Within both the Athol area and the Fitchburg/Leominster/Gardner area, this percentage was higher at 25.4% and 22.3%, respectively.

Injuries and Violence

In Massachusetts during the 2005 – 2010 timeframe, the age-adjusted Homicide Mortality Rate was 2.8 per 100,000. Within the MPH region, the rate was 2.3, lower than that of the Commonwealth. Within the reporting regions in the MPH area, only Fitchburg exhibited a Homicide Mortality Rate higher than the State during this time period, with a rate of 3.9. In contrast to the lower homicide rate, all other mortality and injury rates were higher in the MPH region than the State. During the 2005 - 2010 time period:

- The age-adjusted Poisoning Mortality Rate in Massachusetts was 13.4 per 100,000. Within the MPH region, the rate was higher than the Commonwealth at 15.7.
- The age-adjusted Motor Vehicle Mortality Rate in Massachusetts was 6.2 per 100,000. Within the MPH region, rate was higher than the Commonwealth at 8.9. Most of the reporting regions in the MPH service had age-adjusted Motor Vehicle Related Mortality Rates higher than the State, with the highest rate reported in Clinton at 19.1 (representing 16 motor vehicle related deaths and a rate that was 3.1 times that of the Commonwealth as a whole).
- The Weapons-Related Injury Rate in Massachusetts was 202.3 per 100,000. Within the MPH region, the rate was higher than the Commonwealth at 214.2. Two of the reporting

regions in the MPHNN service area had Weapons-Related Injury Rates higher than the State, with the highest rate reported in Fitchburg at 384.4 (representing 155 weapons-related injuries and a rate that was 1.9 times that of the Commonwealth). Gardner also reported a high Weapons-Related Injury Rate of 271.9 (representing 55 weapons-related injuries and a rate that was 1.3 times that of the Commonwealth). The only individuals towns in the MPHNN region to have numbers large enough to be reported in this time period were Athol, with a Weapons-Related Injury Rate of 207.2 (representing 24 cases) and Templeton, with a Weapons-Related Injury Rate of 124.8 (representing 10 cases).

Child Abuse/Neglect

In 2009, Massachusetts had a maltreatment investigation rate of 32 per 1,000 children. Four of the communities within the MPHNN region reported rates of maltreatment investigations higher than that of the State. The highest rate was reported in Athol at 62.2 or 1.9 times the rate reported in the Commonwealth. Gardner also reported a high maltreatment investigation rate (56), as did Fitchburg (50) and Leominster (35.7).

A second measure relative to the maltreatment or abuse/neglect of children is the number of substantiated allegations following an investigation. Within the Commonwealth in 2009, there were 18.3 substantiated allegations of child maltreatment following an investigation per 1,000 children. Four of the communities within the MPHNN region reported rates of substantiated child maltreatment higher than that of the State. The highest rate was reported in Athol at 41.4 or 2.3 times the rate reported in the Commonwealth. Gardner also reported a high substantiated maltreatment rate (30.3), as did Fitchburg (30.2) and Leominster (21.5).

VI. Summary and Conclusions

This Community Health Assessment is designed to provide information and analysis relative to health status, issues, concerns, and assets of the communities that form the Montachusett Public Health Network (MPHNN). In addition to providing a picture of the region's health, this Assessment meets contractual requirements for the Public Health District Incentive Grants (PHDIG) awarded to local public health districts by the Massachusetts Department of Public Health and funded through the CDC National Public Health Improvement Initiative.

This Assessment includes two parts. Part 1 contains quantitative and qualitative data related to the demographic and sociodemographic characteristics of the MPHNN region as well as the MPHNN's three priority areas: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Part 2 contains quantitative and qualitative data related to the General Health Characteristics of the region. It is important to note that the MPHNN's priority areas were established prior to researching and writing this report. They were based on findings of previous health assessments conducted by the Joint Coalition on Health and the CHNA 9. Consequently, there is a preponderance of data related to the priority areas, particularly with regard to qualitative information. The Focus Group and Key Informant Interview tools developed to capture "the community voice" were designed specifically to elicit responses related to the priority areas. As a result, there is much less qualitative information included in Part 2. However, the information that is included was spontaneously generated by Focus Group and/or Key Informant Interview participants and represents an authentic voice.

The data presented in this Assessment demonstrates that many of the health concerns that residents of North Central Massachusetts face are considered **preventable chronic conditions** (i.e., overweight/obesity which could be prevented with changes to specific risk factors and health behaviors, such as poor diet and insufficient physical activity). This indicates that there are interventions and initiatives that we, as municipalities, community members and agencies, can undertake in our own lives and for our clients and employees which can lead to improved health for our region.

Unfortunately, research has shown that preventable chronic conditions are greatly impacted and exacerbated not only by sociodemographics and social determinants (see section on Health Disparities), but also by economic conditions. In difficult economic times, such as those we are currently facing, positive health behavior changes are difficult to initiate and sustain. With high unemployment rates and reductions in workers' hours, it is more difficult for residents to purchase healthy foods, maintain fitness club memberships, participate in stress-reducing activities and afford health insurance premiums – all of which have been shown to positively impact health and quality of life. Racial and ethnic minorities bear the additional burden of racism and language barriers which compound these challenges.

At the same time, research has also shown that preventable chronic conditions put a strain on the local economy. Costs to employers from absenteeism are more than twice direct medical costs incurred by employees through their employer-based health plans. Consequently, we, as a region, must focus on assisting our families, our clients and our employees to make healthy choices in their lives. We should come together as a community with participation from all sectors to improve access not just to healthcare, but to other basic goods and services which enable residents to make healthier lifestyle choices. We must make the case that a healthy community contributes to a healthier economy.

The Montachusett Public Health Network (MPHN) is one of many examples of how the North Central Massachusetts area has already begun to come together in this way. The MPHN, the Joint Coalition on Health and the CHNA 9 as well as other cross-sector collaborations like the Gardner Area Interagency Team, the North Quabbin Community Coalition, the North Central Massachusetts Faith Based Community Coalition, the Minority Coalition, the Greater Gardner Suicide Prevention Task Force, etc. work together every day to ensure equal access to resources for all residents. These coalitions and partnerships are known throughout the region and across the state as tremendous assets and were mentioned in Focus Groups and Key Informant Interviewees as key community resources.

Other assets and resources that were specifically mentioned by community members in the course of developing this Assessment included: Healthcare Resources such as the local federally qualified community health center, Community Health Connections, Inc. and the Massachusetts Health Connector; Prevention Resources within the schools and community like Fun 'n FITchburg which focuses on preventing childhood obesity and Community Action Teams which focus on reducing minors' access to alcohol as well as tobacco and other drugs; Nutrition and Fitness Programs such as WIC, the local Farmers Markets, Meals on Wheels and Mount Wachusett Community College's Fitness Center; Municipal Infrastructure Improvements like playgrounds, parks and pedestrian friendly walkways; Municipal Boards and Committees like the local Boards of Health which offer services and help to change policies for better health and Open Space Committees working to improve the physical environment; and Implementation of Best Practices like the Medical Home

Model at Community Health Connections, improvements to school menus, Prescription Take Back Days and prescription and sharps disposal services.

These assets provide a foundation upon which the MPHNN, its member communities and partners can build to achieve its mission of “raising the health status of the region’s residents to the highest in the country.”

ASSESSMENT INTRODUCTION

I. Purpose:

This Community Health Assessment is designed to provide information and analysis relative to health status, issues, concerns, and assets of the communities that form the Montachusett Public Health Network Region (MPHN). The assessment includes the 11 cities and towns served by the MPHN including Athol, Clinton, Fitchburg, Gardner, Leominster, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster. In addition to providing a picture of the communities' health, this CHA meets contractual requirements for the Public Health District Incentive Grants (PHDIG) awarded to local public health districts by the Massachusetts Department of Public Health and funded through the CDC National Public Health Improvement Initiative. The PHDIG program is intended to permanently strengthen the local public health infrastructure in Massachusetts by taking maximum advantage of limited resources to protect population health, prevent injury and disease, and promote healthy behaviors through policy change and service delivery at the regional level.

The MPHN contracted with the Joint Coalition on Health of North Central Massachusetts (JCOH) to conduct this assessment. The JCOH was formed in 1998 and is a group of committed individuals and organizations working collaboratively as catalysts for change and advocates for the underserved to improve the health and well-being of everyone in North Central Massachusetts.

The JCOH has a history of conducting community health assessments (most recently *Community Health Assessment of North Central Massachusetts*, 2011, conducted in collaboration with the Community Health Area Network of North Central Massachusetts and the Minority Coalition of North Central Massachusetts). It also has a history of utilizing health assessment results to identify and tackle challenging issues affecting the health and well-being of the North Central MA region. Past achievements of the JCOH include:

- The founding of a federally qualified community health center organization, Community Health Connections, Inc.,
- The expansion of local dental services for low-income youth and adults through the Oral Health Initiative of North Central Massachusetts, and
- The establishment of a school-based health center in Winchendon with behavioral health services provided through The Winchendon Project.

The JCOH subcontracted with LUK, Inc., a member organization, to conduct the qualitative portion of the assessment. LUK has been assisting school districts to implement the YCS since 2007. In that time, it has been implemented in 19 school districts across Central MA and with over 40,000 students. As per the Memorandum of Understanding signed between each participating school district, the data derived from the surveys belongs to the respective school districts, not to LUK. The school districts have agreed to release the data only in aggregate form without identifying specifically which districts have participated.

Since 2003, the Partnership for Youth, a program of the Franklin Regional Council of Governments, has worked in partnership with area school districts, through the Regional School Health Task Force, to conduct an annual Teen Health Survey of 8th, 10th and 12th graders in schools in Franklin County and the North Quabbin. The Athol Royalston Regional School District (ARRSD) has participated in the regional survey process every year since 2007. Although not

contained in this report, findings from the 2013 Teen Health Survey, including ARRSD, are available in aggregate form and can be accessed at the North Quabbin Community Coalition www.nqcc.org

The stated goal of the MPHNN is “*raising the health status of the residents of our communities to the highest levels anywhere in the country*”. Previous community health assessments, including the Community Health Assessment of North Central Massachusetts together with reports by the Department of Public Health, identified elevated levels of drug abuse, obesity and suicide among the residents of the MPHNN communities. These conditions not only have an immediate adverse impact on health status, but also have downstream effects that can linger for years, compromising the lives of entire families. As a result, the MPHNN decided to make a concentrated effort to study these conditions in this community health assessment.

II. Assessment Structure

This Assessment has been divided into two parts. Part 1 contains data related to the demographic and sociodemographic characteristics of the MPHNN region as well as quantitative and qualitative data related to the MPHNN’s three priority areas: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Part 2 contains data related to the General Health Characteristics of the region. Data in Part 2 is primarily quantitative in nature. Any qualitative information included in Part 2 was spontaneously generated by Focus Group and/or Key Informant Interview participants.

III. Study Area Overview

The Montachusett Public Health Network (MPHNN) service area is composed of 11 cities and towns in the Montachusett area of the North Central region of the Commonwealth of Massachusetts. These communities are Athol, Clinton, Fitchburg, Gardner, Leominster, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster.

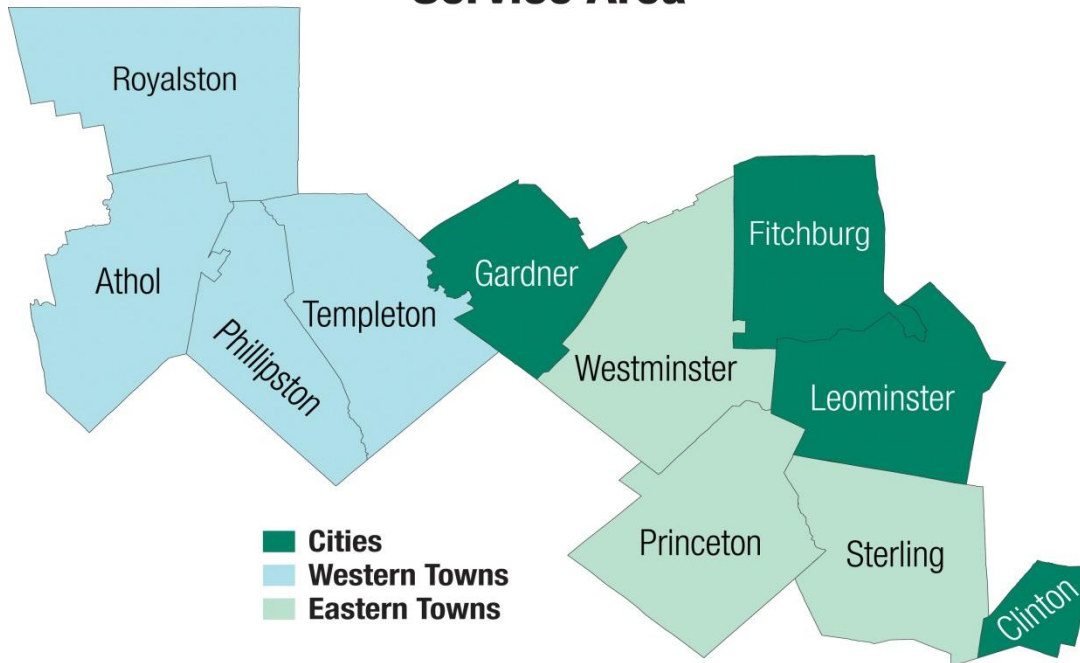
Quantitative data in this report is presented individually for the cities of Fitchburg, Gardner and Leominster and for the town of Clinton. The remaining smaller towns in the MPHNN service area are sometimes combined into reporting regions to obtain meaningful data. The towns of Athol, Phillipston, Royalston and Templeton are combined to form the Western Towns reporting region, while the towns of Princeton, Sterling and Westminster are combined to form the Eastern Towns.

Much of the health data collected for a population group can be misleading if the population size is small. For example, one motor vehicle death in a town of 2,000 people could result in a motor vehicle death rate of 50 per 100,000 people. This rate would be alarming when compared with statewide and Healthy People 2010 age-adjusted rates of less than 10 per 100,000 people. In order to alleviate this problem, most of the towns in the MPHNN service area have been grouped into reporting regions as described above to provide a broader population base for producing meaningful comparative data. Whenever possible, three to five years of data are used for each measure and, when feasible, data is provided for individual towns.

In addition to comparisons made to Massachusetts as a whole, quantitative data are also compared to Healthy People 2010 and Healthy People 2020 goals. Healthy People provides science-based, 10-year national objectives for improving the health of all Americans. For 3

decades, Healthy People has established benchmarks and monitored progress over time in order to encourage collaborations across communities and sectors, empower individuals toward making informed health decisions and measure the impact of prevention activities.

The Montachusett Public Health Network (MPHN) Service Area



IV. Methodology

Data for the Assessment was gathered systematically utilizing the following standards or principles:

1. Availability of multiple years of data on study elements;
2. Specificity of data to the Study Area communities;
3. Appropriateness of data collection methodologies to the data source;
4. Broad participation among the stakeholder populations; and
5. Broad range of input from qualitative and quantitative sources.

It is important to note that the MPHN's priority areas were established prior to researching and writing this report. They were based on findings of previous health assessments conducted by the Joint Coalition on Health and the CHNA 9. Consequently, there is a preponderance of data related to the priority areas, particularly with regard to qualitative information. The Focus Group and Key Informant Interview tools developed to capture "the community voice" (described below) were designed specifically to elicit responses related to the priority areas. As a result, there is much less qualitative information included in Part 2. However, the information that is included was spontaneously generated by Focus Group and/or Key Informant Interview participants and represents an authentic voice.

A. Quantitative Data Sources

Massachusetts Community Health Information Profile (MassCHIP)

Most of the quantitative data used in this report was obtained from the Massachusetts Community Health Information Profile (MassCHIP). According to the Commonwealth of Massachusetts website (www.mass.gov),

“MassCHIP was developed by the Massachusetts Department of Public Health to assist communities and professionals in health planning. MassCHIP provides access to 36 health status, health outcome, program utilization, and demographic data. MassCHIP is a dynamic, user-friendly information service that provides free, online access to health and social indicators. With MassCHIP, you can obtain community-level data to assess health needs, monitor health status indicators, and evaluate health programs.”

MassCHIP includes information from the following data sources:

- Vital Statistics;
- Communicable Diseases;
- Sociodemographics, including US Census Socioeconomic data (1990 and 2000);
- Massachusetts Department of Public Health Program Utilization.
- Additional Data Sets:
 - Childhood Lead Screening;
 - Cancer Incidence;
 - Hospital Discharges;
 - Hospital Emergency Department;
 - Observation Stay;
 - Weapons Related Injury Surveillance System (WRISS);
 - Behavioral Risk Factor Surveillance System (BRFSS);
 - Department of Education;
 - Department of Children and Families; and
 - Division of Early Education and Care.

It is important to note that MassCHIP suppresses data (as indicated by “0.0” in the charts presented in this Assessment) when the sample size is small enough that confidentiality could be compromised. In this report, suppression often appears in instances where indicators are presented by race (i.e., many of the communities in the MPH Network have such small racial/ethnic populations that confidentiality could be compromised by disclosing health characteristics of people within those populations). In order to reduce the number of times data is suppressed in this report, we have combined communities into reporting regions (as described in the Study Area Overview). Combining communities increases the population base across which these statistics are reported, thereby decreasing the risk of compromising confidentiality.

Most of the data sourced from MassCHIP was obtained through the custom reporting feature. However, MassCHIP also includes a series of Instant Topics (formerly known as standard reports), which are predefined reports using MassCHIP's most recent data. MassCHIP Instant Topics were

used to obtain the data for the School District Overweight and Obesity section and for certain sections sourced from the Behavioral Risk Factor Surveillance System (BRFSS).

Regarding the BRFSS: According to the Massachusetts Department of Public Health website:

“The BRFSS is a continuous, random–digit–dial, telephone survey of adults ages 18 and older and is conducted in all states as collaboration between the federal Centers for Disease Control and Prevention (CDC) and state departments of health. The Massachusetts survey includes a core set of questions developed by CDC, optional state modules developed by CDC, and state-added questions developed by programs within the Massachusetts Department of Public Health. The BRFSS collects data on a variety of health risk factors, preventive behaviors, chronic conditions, and emerging public health issues. The information obtained in this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing interventions and prevention programs, developing health policy and legislation, and measuring progress toward attaining state and national health objectives.”

BRFSS data is not available individually for any of the communities or reporting regions within the MPHNN service area. The breakdown which most closely aligns with the MPHNN is at the Community Health Network Area (CHNA) level.

A Community Health Network is a local coalition of public, non-profit, and private sectors working together to build healthier communities in Massachusetts through community-based prevention planning and health promotion. The Massachusetts Department of Public Health established the Community Health Network Area (CHNA) effort in 1992. Today this initiative involves all 351 towns and cities through 27 Community Health Networks.

The communities in the MPHNN region are part of two different CHNAs. Athol, Phillipston and Royalston are part of CHNA 2, the Upper Valley Health Web of Franklin County, making up 16.7% of the population of this CHNA. Clinton, Fitchburg, Gardner, Leominster, Princeton, Sterling, Templeton and Westminster are part of CHNA 9, the Community Health Network of North Central Massachusetts, making up 53.8% of the population in this CHNA. All of the BRFSS analyses in this report will provide data on CHNA 2, CHNA 9 and Massachusetts as a whole.

Unless noted, all quantitative data in this report was sourced from MassCHIP.

Massachusetts Department of Elementary and Secondary Education

Although MassCHIP does contain data from the Department of Education, more recent data is readily available from the Massachusetts Department of Elementary and Secondary Education website (www.doe.mass.edu). This website served as the source of most of the data in the Education Section/Sociodemographics and for the data relative to Special Education for Emotional Disabilities Section/Mental Health and Substance Abuse.

Youth Risk Behavior Surveillance System (YRBSS)/Youth and Community Survey (YCS)

The Youth Risk Behavior Surveillance System (YRBSS) monitors six types of health-risk behaviors that contribute to the leading causes of death and disability among youth and adults, including: behaviors that contribute to unintentional injuries and violence; sexual behaviors that contribute to

unintended pregnancy and sexually transmitted diseases (e.g., HIV infection); alcohol and other drug use; tobacco use; unhealthy dietary behaviors; and inadequate physical activity. YRBSS also measures the prevalence of obesity and asthma among youth and young adults.

The YRBSS includes a national school-based survey, the Youth Risk Behavior Survey (YRBS), conducted by the Centers for Disease Control and Prevention as well as state, territorial, tribal, and local surveys conducted by state, territorial, and local education and health agencies and tribal governments. YRBS data presented in this Assessment was collected in school districts across North Central Massachusetts by LUK.

LUK works with school districts to implement a Youth and Community Survey (YCS) which is a hybrid between the traditional YRBS and the Communities That Care (CTC) survey by Hawkins and Catalano, available through the Substance Abuse and Mental Health Services Administration. The YCS includes CTC questions around youths' perception of substance abuse and other risky behaviors among their peers and in their community.

LUK has been assisting school districts to implement the YCS since 2007. In that time, it has been implemented in 19 school districts across Central MA and with over 40,000 students. As per the Memorandum of Understanding signed between each participating school district, the data derived from the surveys belongs to the respective school districts, not to LUK. The school districts have agreed to release the data only in aggregate form without identifying specifically which districts have participated.

It is important to note that YRBS and YCS data is inherently limited. It reflects the self-reported behavior of the students who participated in the survey on that day. Out of school youth are not included. LUK and the school district work towards having a level of student participation which is high enough to ensure the integrity of the data.

Massachusetts Department of Workforce Development, Division of Unemployment Assistance

Although MassCHIP does contain data from the Department of Workforce Development, Division of Unemployment Assistance, more recent data is readily available from the Commonwealth of Massachusetts website (www.mass.gov). This website served as the source of data in the Unemployment Section/Sociodemographics

United States Department of Commerce, U.S. Census Bureau

Although MassCHIP does contain data from the U.S. Census, some of the data from the 2010 census is not yet available in MassCHIP. Census data was obtained from U.S. Census Bureau website (www.census.gov). This website served as the source of all of the data in the Demographics Section and the source of data in the Income Section/Sociodemographics.

Massachusetts Judicial Branch, Trial Court

Data relative to civil restraining orders was obtained from Trial Court Statistics available from the trial court website (www.mass.gov/courts). This website served as the source of data in the Domestic Violence Section/Injuries and Violence.

United States Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA)

Data relative to adult mental health and substance abuse was obtained from National Surveys on Drug Use and Health (NSDUHs) available on the SAMHSA website (www.samhsa.gov). This website served as the source of data in the Adult Mental Health and Adult Substance Abuse Sections/Mental Health and Substance Abuse.

United States Department of Health and Human Services, Healthy People

Whenever possible, measures in this report were compared with Healthy People 2010 and/or Healthy People 2020 Objectives. This data was obtained from the Healthy People website (www.healthypeople.gov). This website served as the source of all Healthy People objectives throughout this report.

B. Qualitative Data

Ultimately, what makes the 11 cities and towns of the Montachusett Public Health Network (MPHN) unique, are the people. The quantitative demographic, socioeconomic and health characteristics tell one significant part of the story. The other piece of the story is told by how they live, think, talk and interact with each other; by what moves them and what they value; by their collective and individual experiences. Understanding this, much effort was devoted to ensuring that as many diverse community voices as possible were incorporated into this Assessment.

To capture these voices, qualitative data was collected through Focus Groups and Key Informant Interviews between April and September 2013, in all 11 cities and towns that comprise the MPHN. Every effort was made to ensure that diversity was represented in terms of race/ethnicity, socioeconomic status, sexual orientation, age, geography and sector (e.g., public health, municipal government, law enforcement).

Participants for the Focus Groups and Key Informant Interviews were identified in two ways. 1) MPHN members provided contacts in each of the eleven municipalities. 2) LUK staff and the Executive Director of the North Quabbin Community Coalition provided contacts through their work in the catchment area. Municipal lists were then created to ensure that the Focus Groups would be populated with as homogenous participants as possible, (e.g., rural mixed income, Latinos, Blacks, youth) and that the Key Informants had some level of knowledge/expertise in the subject areas.

It is important to note that there was no advertising involved in the recruitment effort. However, during the recruitment process, Focus Group and Key Informant interviewees were specifically told that they would have the opportunity to contribute their thoughts to a community assessment which would cover the topics of community health, obesity, substance abuse/mental health and suicide.

The role of the qualitative data is to make the diversity of voices in the MPHN communities evident in this Assessment. This type of data provides a lens into the current community conditions in as “real time” as possible, thereby giving the reader a picture of present health-related concerns. Unlike quantitative data, qualitative data has minimal numerical expressions beyond the number of respondents and their characteristics (e.g., 10 participants, 6 female, 4 male, between the ages of 30 and 55). Qualitative data is descriptive and subjective and allows for the biases that participants have to contribute to the community profile in a manner which illuminates the quantitative aspect. In order to increase the understanding of community health in the MPHN area, the stories and opinions (qualitative data) need to intersect with the numerical profile (quantitative data). This is why participants were informed of the MPHN’s priority areas prior to their participation and why a preponderance of qualitative data reflects those health issues.

Focus Group notes and Key Informant Interviews were analyzed and reviewed for consistency by LUK, Inc., utilizing manual qualitative content analysis. The following chart illustrates the breadth and depth of the qualitative data sources used in this Assessment:

Qualitative Data Collection

Activity	Community	Language	Number of Participants	Age Range	Ethnicity	Gender	Location
Focus Group	Latino	Spanish	7	45-64: 3 65+: 4	Hispanic/Latino	Female: 5 Male: 2	Spanish American Center, Leominster
Focus Group	African-American	English	6	20-29: 1 30-44: 2 45-64: 3	Black (Non-Hispanic)	Male: 6	LUK, 99 Day St., Fitchburg
Focus Group	Youth	English	6	Under 20: 6	Hispanic/Latino: 2 Caucasian: 2 Black (non-Hispanic): 2	Female: 3 Male: 3	Gardner High School
Focus Group	Rural; Mixed Income	English	8	30-44: 1 45-64: 7	Caucasian: 8	Female: 8	Athol
Focus Group	Hmong	English/ Khmer (w trans)	7	20-29: 2 30-44: 3 45-64: 2	Hmong	Male: 7	United Hmong, Inc. office in Fitchburg
Focus Group	Clinton	Spanish	8	30-44: 2 45-64: 4 65+: 2	Hispanic/Latino: 7 Multiracial: 1	Female: 7 Male: 1	Clinton Hospital
Focus Group	Fitchburg	English	7	Under 20: 2 30-44: 3 45-64: 2	Hispanic/Latino: 1 Multiracial: 1 Caucasian: 5	Female: 2 Male: 5	Resident Home
Focus Group	Gardner	English	10	20-29: 3 30-44: 3 45-64: 4	Caucasian: 9 Native American: 1	Female: 5 Male: 5	Nu Café
Focus Group	Public School Nurses	English	6	30-44: 1 45-64: 5	Caucasian	Female: 6	Doyle Conservation Center, Leominster
Focus Group	Phillipston	English	5	45-64: 5	Caucasian	Female: 2 Male: 3	Narragansett High School
Focus Group	Princeton	English	6	20-29: 2 30-44: 3 45-64: 1	Caucasian	Male: 6	Wachusett Mountain
Focus Group	Seniors	English	6	45-64: 1 65+: 5	Caucasian	Female: 3 Male: 3	Kamaloht Resturant
Focus Group	Westminster	English	8	Under 20: 2 20-29: 2 30-44: 2 45-64: 2	Caucasian	Female: 6 Male: 2	Westminster Elementary School
Key Informant Interviews	Various	English	73	20-29: 5 30-44: 19 45-64: 43 65+: 6	Caucasian, Asian (Hmong, Native American, Hispanic/Latino, Multi-racial, Black(non-Hispanic)	Female: 29 Male: 44	Various

In total, 90 individuals participated in the 13 Focus Groups that were conducted in Clinton, Fitchburg, Gardner, Leominster, Phillipston, Princeton, Templeton, and Westminster. Focus Groups were also conducted with non-geographic populations: Hmong (conducted in Khmer with translation), Latinos (conducted in Spanish), African-Americans, rural/mixed income, seniors, youth, and nurses. For each Focus Group a Facilitator, a Note Taker, and a Greeter were assigned. To increase the comfort level of the participants, the Greeter was someone already familiar with them (e.g., someone from the host agency/location) whenever possible.

A total of 73 Key Informant Interviews were conducted: Athol (6), Clinton (6), Fitchburg (8), Gardner (7), Leominster (5), Phillipston (6), Princeton (5), Royalston (4), Sterling (9), Templeton (9), Westminster (5) and the Gay, Lesbian, Bisexual, Transgender (GLBT) community (3). Representation included people working in transportation, the Chambers of Commerce, non-profits, hospitals, senior centers, public schools, nursing, and recreation; also interviewed were local and state police officers, a lawyer, local politicians, nurses, town officials, fire fighters, and members of the GLBT and faith communities.

All participants in both the Focus Groups and the Key Informant Interviews completed individual demographic information sheets that asked for gender, age range, whether the individual owns or rents his/her home, how the individual rates his/her living condition, the age of his/her dwelling, city or town where he/she resides, works and/or studies, and race/ethnicity.

1. Focus Groups

The conversations in the Focus Groups were both revealing and encouraging. Revealing because the candor and interest with which people spoke about the health issues covered in this Assessment made the issues multi-dimensional; they made the issues come alive. The conversations were encouraging because from the beginning to the end of the process, it was evident that the people we met were deeply invested in and committed to the health of their communities. They consistently engaged fully and eagerly in the conversations. Comments like “Thank you for the opportunity” and “not everybody asks us what we think” were common. The reason for the energy and enthusiasm palpable in the Latino Focus Groups was captured by one of the participants who stated: “It’s good to talk about important things like these in Spanish.”

Thirteen Focus Groups were conducted, including two in Spanish and one in Khmer (with translation). The groups took place in community organizations, schools, community settings (e.g., restaurants), and hospitals; one took place at a resident’s home. A total of 90 individuals, not counting the Facilitators, Note Takers or Greeters, participated in the groups. The groups ranged from 5 to 10 participants each, with an average of 7 participants per group. A demographic breakdown shows: 43 Males, 47 Females; 10 were under 20 years of age, 10 were ages 20-29, 20 were ages 30-44, 39 were ages 45-64, and 11 were 65+; participants self-identified as: African-American (non Hispanic) (8), Caucasian (55), Hispanic/Latino (17), Native American (1), Hmong (7) and Multiracial (2).

The Focus Group guide was developed by LUK and reviewed and approved by the MPH. It included questions around personal and community health as well as the priority areas (Obesity, Substance Abuse, and Suicide) established by the MPH for this Assessment. Specifically:

Personal Health

How do you rate your personal health – poor, fair, good or excellent?

For you and your family, what are the top three health concerns?

Community Health

What does the term “Healthy Lifestyle” mean to you?

In your opinion, what are the top three barriers to accessing health care?

How can your community address those barriers?

Obesity

In your opinion, are being overweight/obese a problem in your community? If yes, why?

How important to you is your community’s investment in recreational spaces such as walking and bike trails, playgrounds, public parks?

What are some of the resources available in your community which can help individuals and families reach and/or maintain a healthy weight?

What are additional resources that you would like to see added?

Substance Abuse

Do you think substance abuse is a problem in your community and why?

On November 4, 2008, the voters passed a law in Massachusetts decriminalizing the possession of less than an ounce of marijuana and replacing it with a \$100 civil fine. On November 6, 2012, the state voters approved an initiative to eliminate criminal and civil penalties for the use of medical marijuana and to set up a system for the distribution of marijuana intended for medicinal purposes. How do you believe these two initiatives approved by the voters of Massachusetts impact your community?

If applicable, how do you currently store prescription and non-prescription medications?

What do you believe is your community’s role in assisting citizens with the proper disposal of prescription and non-prescription medications?

What do you believe is your community’s role in assisting citizens with the proper disposal of sharps?

If applicable, how do you disposal of prescription and non-prescription medications? Sharps?

What are some of the resources available in your community that can help individuals and families prevent substance abuse and/or achieve recovery?

Suicide

Do you consider suicide to be a problem in your town?

Why or why not?

In your opinion, what are some things that can contribute to suicide?

Do you believe your community should play a role in limiting the means to commit suicide?

In the unfortunate event of a successful suicide in your town, what resources are available to individuals and families?

How well does the community know about these resources?

Notes from the Focus Groups were analyzed by LUK using manual qualitative content analysis in which multiple reviewers looked at the data and conclusions for consistency. Participant feedback was only reported when expressed in multiplicity in the data gathering (i.e., **descriptions and quotations are not recorded in this Assessment if expressed solely by one participant**). The findings of the Focus Groups are synthesized and are recorded within the body of this Assessment.

2. Key Informant Interviews

The Key Informant Interviews complement the data from the Focus Groups. There were 73 interviews conducted between mid-April and mid-June 2013 in settings including: private offices, community agencies, schools, and municipalities. The demographic breakdown of the Key Informant Interviewees demonstrates the following diversity: 44 Males, 29 Females; 0 were under 20 years of age, 4 were ages 20-29, 17 were ages 30-44, 39 were ages 45-64, and 5 were 65+; participants self-identified as: GLBTQ (1), African-American (non Hispanic) (1), Caucasian (54), Hispanic/Latino (3), Native American (2), Asian/Hmong (1), and Multiracial (1).

The Key Informant Interview guide was developed by LUK and reviewed and approved by the MPH. It included questions around community health as well as the priority areas (Obesity, Substance Abuse, and Suicide) established by the MPH for this Assessment. Specifically:

Community Health

In your opinion what do you think is the single largest public health issue facing your community?

How important is the “prevention” of public health issues to you? What can the community do around prevention?

In your opinion, what are the top three barriers to accessing health care?

How can your organization assist in addressing those barriers through policy, programming or other?

Obesity

What should be the role of the community in protecting people from unhealthy behaviors that lead to being overweight/obese?

How important to you is your community's investment in recreational spaces such as walking and bike trails, playgrounds, public parks?

What are some of the resources available in your organization which can help individuals and families reach and/or maintain a healthy weight through policy, programming or other?

What are some additional resources you would like to see added?

Substance Abuse

Do you think substance abuse is a problem in your community and why?

On November 4, 2008, the voters passed a law in Massachusetts decriminalizing the possession of less than an ounce of marijuana and replacing it with a \$100 civil fine. On November 6, 2012, the state voters approved an initiative to eliminate criminal and civil penalties for the use of medical marijuana and to set up a system for the distribution of marijuana intended for medicinal purposes.

How do you believe these two initiatives approved by the voters of Massachusetts impact your community?

What do you believe is your community's role in assisting citizens with the proper disposal of prescription and non-prescription medications?

What do you believe is your community's role in assisting citizens with the proper disposal of sharps?

What are some of the resources available in your organization through policy, programming, or other that can help individuals and families prevent substance abuse and/or achieve recovery?

Suicide

Do you consider suicide to be a problem in your town? Why or why not?

In your opinion, what are some things that can contribute to suicide?

Is there a role that your organization can play in limiting the means to commit suicide? Is there a role that other organizations can play?

Do you believe your community has adequate access to counseling facilities for the prevention of suicides?

In the unfortunate event of a successful suicide in your town, what resources are available to individuals and families? How well does the community know about these resources?

Notes from the Key Informant Interviews were analyzed by LUK using manual qualitative content analysis in which multiple reviewers looked at the data and conclusions for consistency. Participant feedback was only reported when expressed in multiplicity in the data gathering (i.e., **descriptions and quotations are not recorded in this Assessment if expressed solely by one participant**). The findings of the Key Informant Interviews are synthesized and are recorded within the body of this Assessment.

PART 1

MONTACHUSETT PUBLIC HEALTH NETWORK PRIORITY AREAS:

Introduction

Demographics

Sociodemographics

Mental Health and Substance Abuse

Suicide

Overweight/Obesity

PART 1 - INTRODUCTION

This section of the Assessment describes the demographic and sociodemographic characteristics of the Montachusett Public Health Network (MPHN) area. It also contains quantitative and qualitative data related to the MPHN's three priority areas: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. These priority areas were established based on findings from previous health assessments conducted by the Joint Coalition on Health and the Community Health Network Area of North Central Massachusetts (CHNA 9).

Both quantitative and qualitative data are included in this section. Data were gathered according to the methodologies described in the Introduction to this Assessment. As noted there, qualitative data collection tools were created by LUK and reviewed and approved by the MPHN. Both the Focus Group and Key Informant Interview guides were comprised primarily of questions specifically related to the MPHN's priority areas. Consequently, the majority of the data collected through the Focus Groups and Key Informant Interviews centered on Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Other health-related concerns did spontaneously arise and are included in this Assessment, where appropriate.

DEMOGRAPHICS

Overall Population by City/Town

This Community Health Assessment will focus on the 11 cities and towns in the MPHN service area. Each of the 11 cities/towns is listed below, with its respective populations in 2000 and 2010, and its population growth and percent growth during this time period.

MPHN Cities/Towns - Population Data 2000 versus 2010

City/Town	2000 Population	2010 Population	Growth	Percent Growth
Athol	11,299	11,584	285	2.5%
Clinton	13,435	13,606	171	1.3%
Fitchburg	39,102	40,318	1,216	3.1%
Gardner	20,770	20,228	-542	-2.6%
Leominster	41,303	40,759	-544	-1.3%
Phillipston	1,621	1,682	61	3.8%
Princeton	3,353	3,413	60	1.8%
Royalston	1,254	1,258	4	0.3%
Sterling	7,257	7,808	551	7.6%
Templeton	6,799	8,013	1,214	17.9%
Westminster	6,907	7,277	370	5.4%

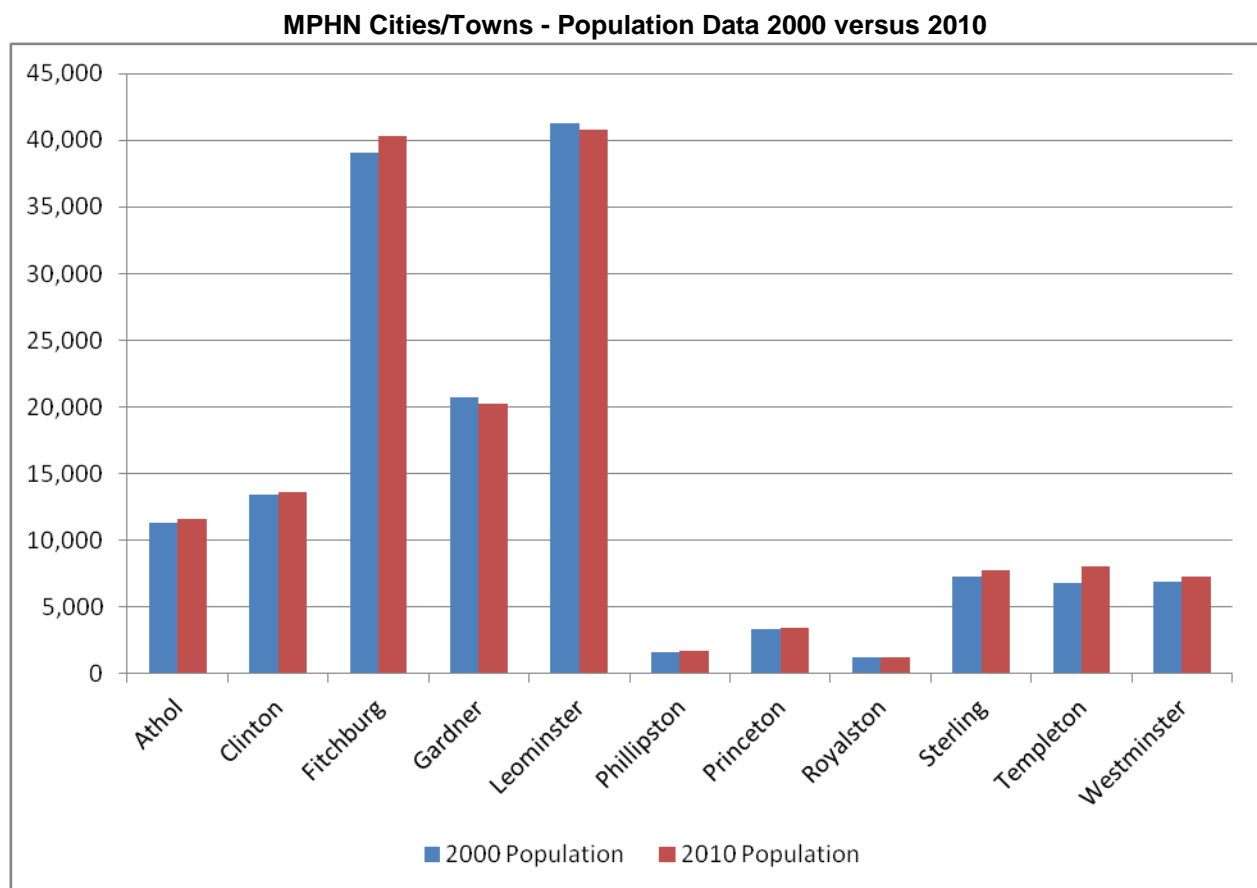
Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table DP-1 and 2010 Census, Summary File 1, Table DP-1.

The 5 largest communities in the MPH service area are the cities of Leominster (40,759), Fitchburg (40,318) and Gardner (20,228) and the towns of Clinton (13,606) and Athol (11,584). The 3 smallest towns are Royalston (1,258), Phillipston (1,682) and Princeton (3,413).

There were 2 cities in the MPH service area which lost population from 2000 to 2010; Leominster lost 544 people and Gardner lost 542 people. The town of Templeton, with a growth rate of 17.9%, was the only town to experience growth of more than 10% during this time period. Two communities experienced an increase in population of over 1,000 people, with Fitchburg and Templeton gaining 1,216 and 1,214 people, respectively.

The MPH service area as a whole experienced a growth of 2,846 people, from 153,100 people in 2000 to 155,946 in 2010, for a growth rate of 1.9%.

For comparative purposes, Worcester County as a whole experienced an increase in population of 47,589 for a 6.3% growth rate during this time period. The Commonwealth of Massachusetts experienced an increase in population of 198,532 for a 3.1% growth rate during this same time period. As a whole, the MPH service area grew at a rate that was lower than the Commonwealth as a whole and less than a third of the rate experienced overall by Worcester County.



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table DP-1 and 2010 Census, Summary File 1, Table DP-1.

Overall Population by Reporting Region

The 11 cities and towns in the MPHN are grouped into 6 reporting regions as follows:

- The Town of **Clinton**
- The City of **Fitchburg**
- The City of **Gardner**
- The City of **Leominster**
- The **Eastern Towns** of Princeton, Sterling and Westminster
- The **Western Towns** of Athol, Phillipston, Royalston and Templeton

Quantitative Data is also presented for the following summary regions:

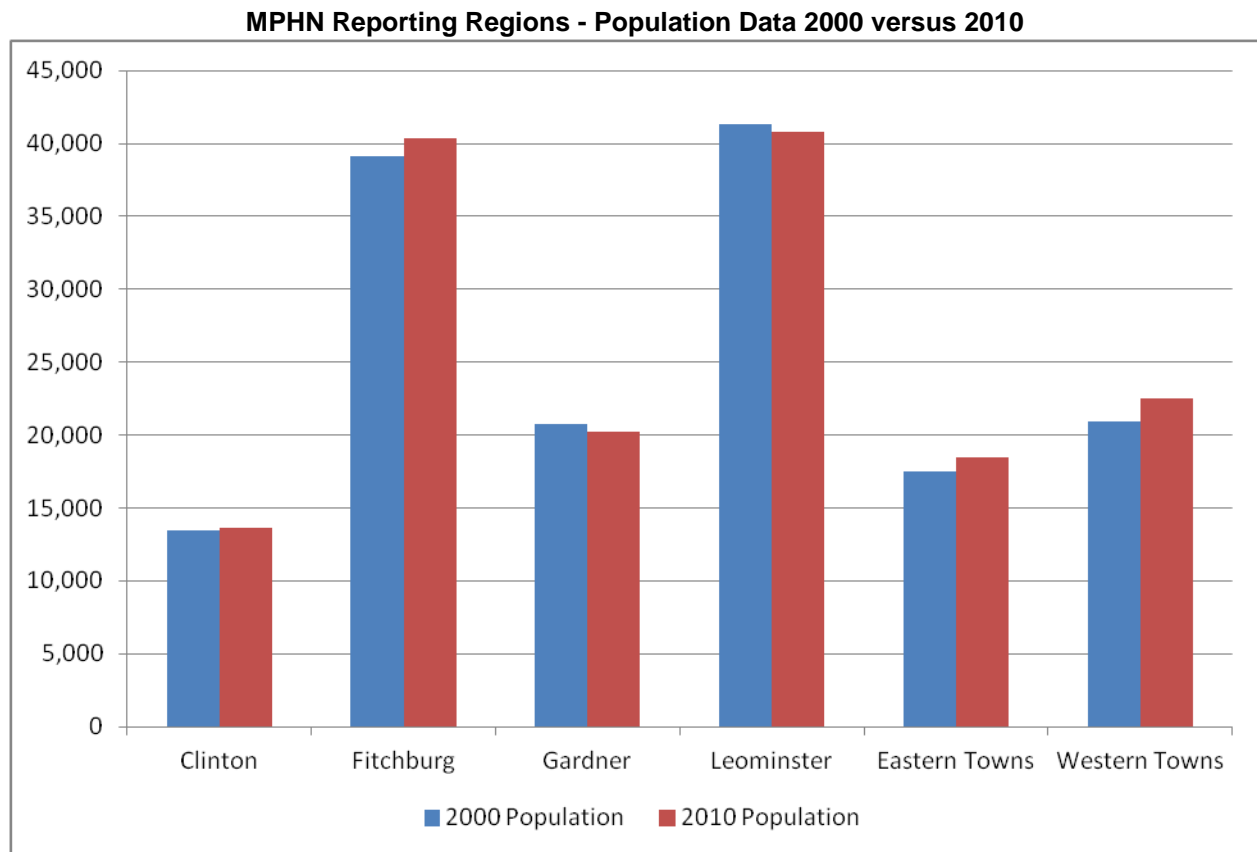
- The **MPHN Service Area** of all 11 cities and towns
- The **Commonwealth of Massachusetts** (for comparative purposes)

MPHN Reporting Regions - Population Data 2000 versus 2010

Reporting Region	2000 Population	2010 Population	Growth	Percent Growth
Clinton	13,435	13,606	171	1.3%
Fitchburg	39,102	40,318	1,216	3.1%
Gardner	20,770	20,228	-542	-2.6%
Leominster	41,303	40,759	-544	-1.3%
Eastern Towns	17,517	18,498	981	5.6%
Western Towns	20,973	22,537	1,564	7.5%
MPHN Service Area	153,100	155,946	2,846	1.9%
Commonwealth of MA	6,349,097	6,547,629	198,532	3.1%

Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table DP-1 and 2010 Census, Summary File 1, Table DP-1.

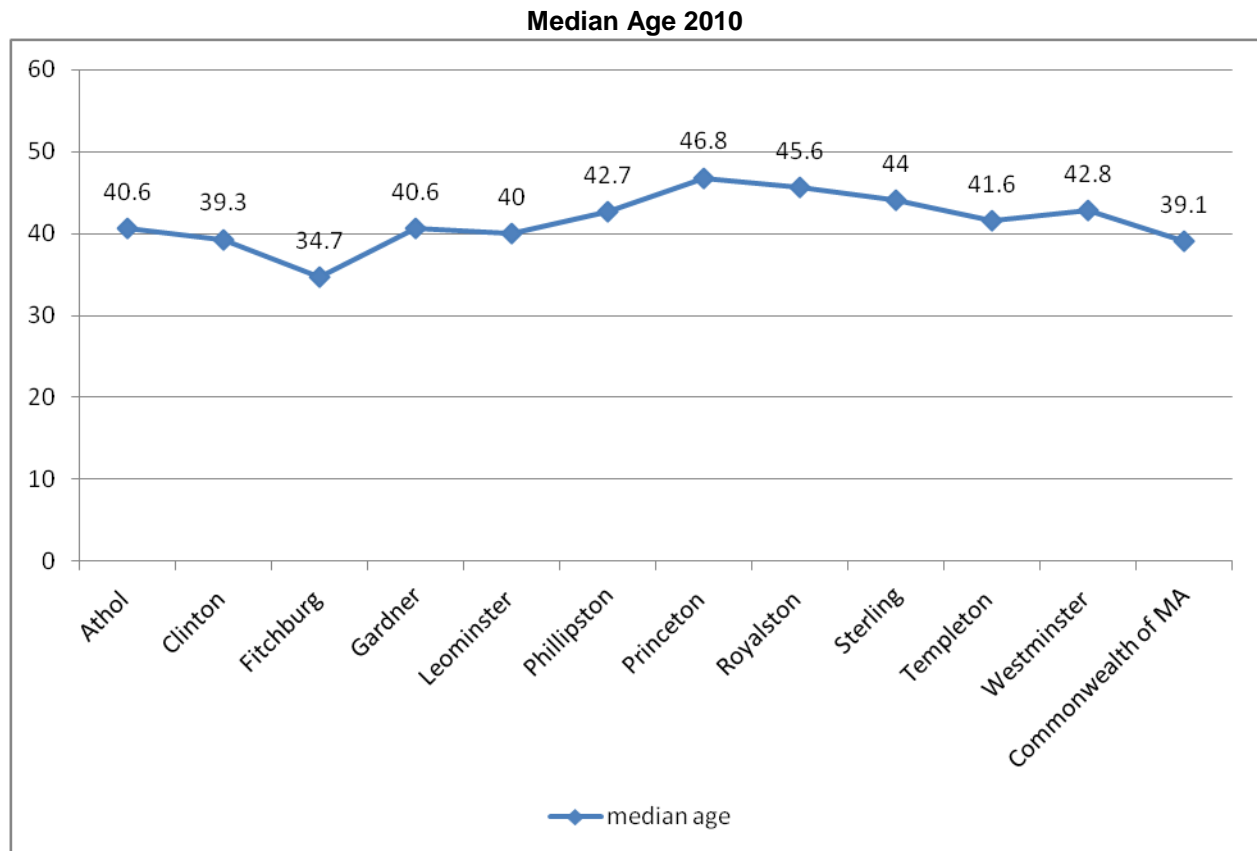
Between 2000 and 2010, the MPH service area experienced a smaller percentage increase in population than did the Commonwealth as a whole, 1.9% vs. 3.1%. As mentioned above, both Gardner and Leominster experienced decreases in population during this time period, while Clinton experienced a small increase in population. On the other hand, Fitchburg saw an increase in population in line with the rate experienced by the Commonwealth. The Eastern Towns and the Western Towns, however, experienced larger growth rates than did the Commonwealth, at 5.6% and 7.5%, respectively.



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table DP-1 and 2010 Census, Summary File 1, Table DP-1.

Age Distribution

The median age in the Commonwealth in 2010 was 39.1 years. Of the cities/towns in the MPH service area, only Fitchburg, with a median age of 34.7 had a younger median age than the State. Most of the cities/towns had median ages similar to that of the Commonwealth. The oldest median ages were found in the towns of Princeton (median age of 46.8), Royalston (median age of 45.6) and Sterling (median age of 44).



Source: U.S. Census Bureau website (www.census.gov): 2010 Census, Summary File 1, Table DP-1.

The distribution of population by 10 year age groups shows that there is variation among the populations of the cities/towns in the MPH service area in this regard.

Percent of Population by 10 Year Age Group (2010)

Age Range (in years)	Athol	Clinton	Fitchburg	Gardner	Leominster	Phillipston	Princeton	Royalston	Sterling	Templeton	Westminster	MA
0 - 9	11.7%	12.1%	12.7%	11.4%	12.0%	10.7%	10.1%	9.9%	12.2%	11.3%	11.1%	11.5%
10 - 19	13.6%	11.9%	14.6%	11.9%	13.1%	14.7%	15.8%	14.5%	14.4%	15.2%	15.0%	13.3%
20 - 29	11.8%	13.3%	16.4%	12.6%	12.0%	9.3%	7.0%	8.8%	7.4%	9.3%	8.8%	14.0%
30 - 39	12.2%	13.6%	12.9%	13.1%	12.8%	10.1%	6.7%	9.2%	10.0%	11.8%	10.8%	12.6%
40 - 49	14.6%	15.6%	13.4%	15.8%	15.8%	21.7%	17.3%	17.0%	17.3%	17.0%	17.5%	15.1%
50 - 59	15.4%	15.3%	12.9%	14.8%	14.6%	18.5%	23.0%	21.3%	18.1%	15.6%	17.9%	14.2%
60 - 69	9.7%	9.1%	7.9%	9.4%	9.5%	8.7%	13.5%	12.5%	11.9%	10.7%	11.7%	9.7%
70 - 79	5.8%	4.9%	4.7%	5.4%	5.5%	4.8%	4.1%	3.8%	4.6%	5.4%	4.0%	5.4%
80 Plus	5.3%	4.2%	4.4%	5.6%	4.7%	1.6%	2.7%	2.8%	4.1%	3.9%	3.2%	4.3%

Source: U.S. Census Bureau website (www.census.gov): 2010 Census, Summary File 1, Table DP-1.

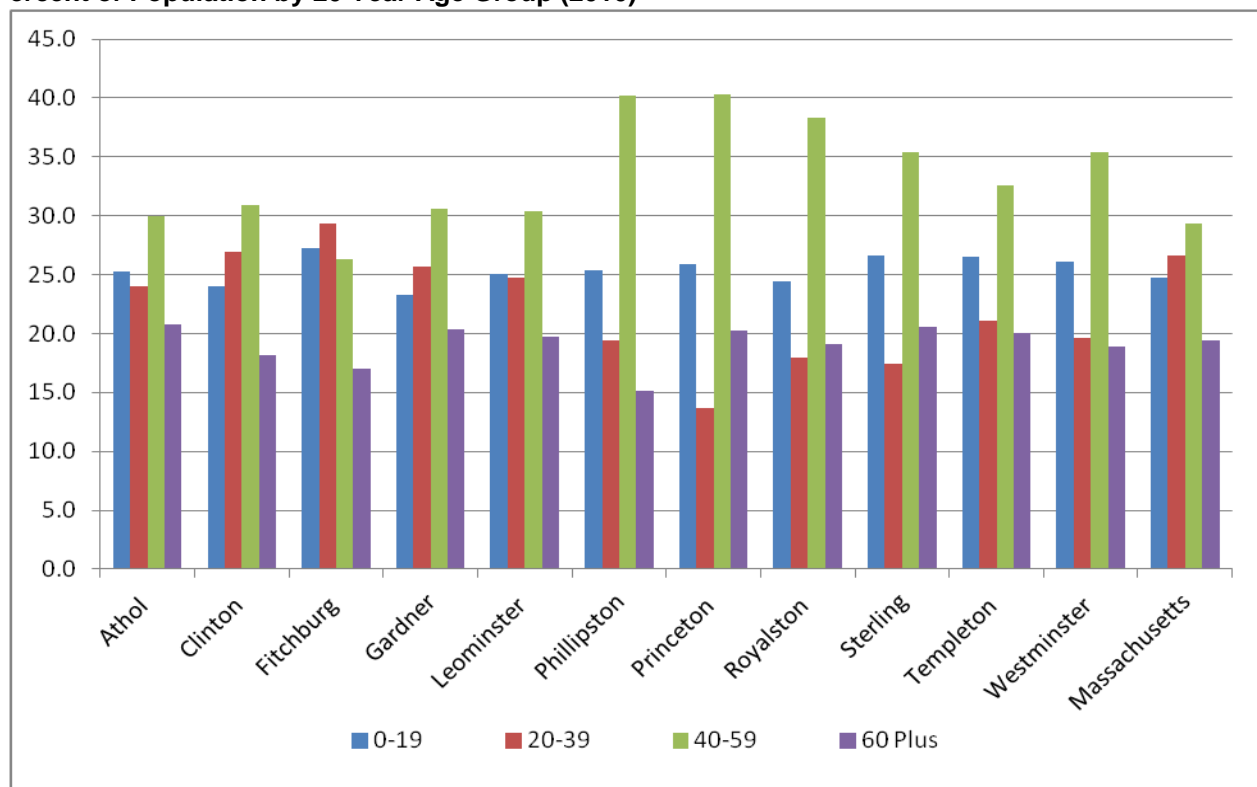
When the population is grouped into 20 year age ranges, it is easier to see some of these differences in age distribution. For the 0-19 age group, the Commonwealth reports a population percentage of 24.8%. Four MPH community (Fitchburg, Sterling, Templeton and Westminster) reported more than 26% of residents in this age range, with the highest percentage of 27.3% found in Fitchburg. In the Commonwealth, 26.6% of the population fell into the 20-39 age group. Fitchburg at 29.3% was well above the State in this regard, while five MPH communities (Phillipston, Princeton, Royalston, Sterling and Westminster) reported less than 20% of residents in this age range, with Princeton reporting only 13.7% of population in this age range. The 40-59 age range represented 29.3% of the Commonwealth's population, while Fitchburg reported a low of 26.3% and Phillipston and Princeton reported highs of over 40% of their populations represented by this age range. Finally, the 60 Plus age range represented the smallest of the State's ranges at 19.4%. Phillipston had the lowest percentage of residents in this age range at 15.1%, while 5 communities (Athol, Gardner, Princeton, Sterling and Templeton) reported that 20% or more of their population fell into this age group.

Percent of Population by 20 Year Age Group (2010)

Age Range (in years)	Athol	Clinton	Fitchburg	Gardner	Leominster	Phillipston	Princeton	Royalston	Sterling	Templeton	Westminster	MA
0-19	25.3%	24.0%	27.3%	23.3%	25.1%	25.4%	25.9%	24.4%	26.6%	26.5%	26.1%	24.8%
20-39	24.0%	26.9%	29.3%	25.7%	24.8%	19.4%	13.7%	18.0%	17.4%	21.1%	19.6%	26.6%
40-59	30.0%	30.9%	26.3%	30.6%	30.4%	40.2%	40.3%	38.3%	35.4%	32.6%	35.4%	29.3%
60 Plus	20.8%	18.2%	17.0%	20.4%	19.7%	15.1%	20.3%	19.1%	20.6%	20.0%	18.9%	19.4%

Source: U.S. Census Bureau website (www.census.gov): 2010 Census, Summary File 1, Table DP-1.

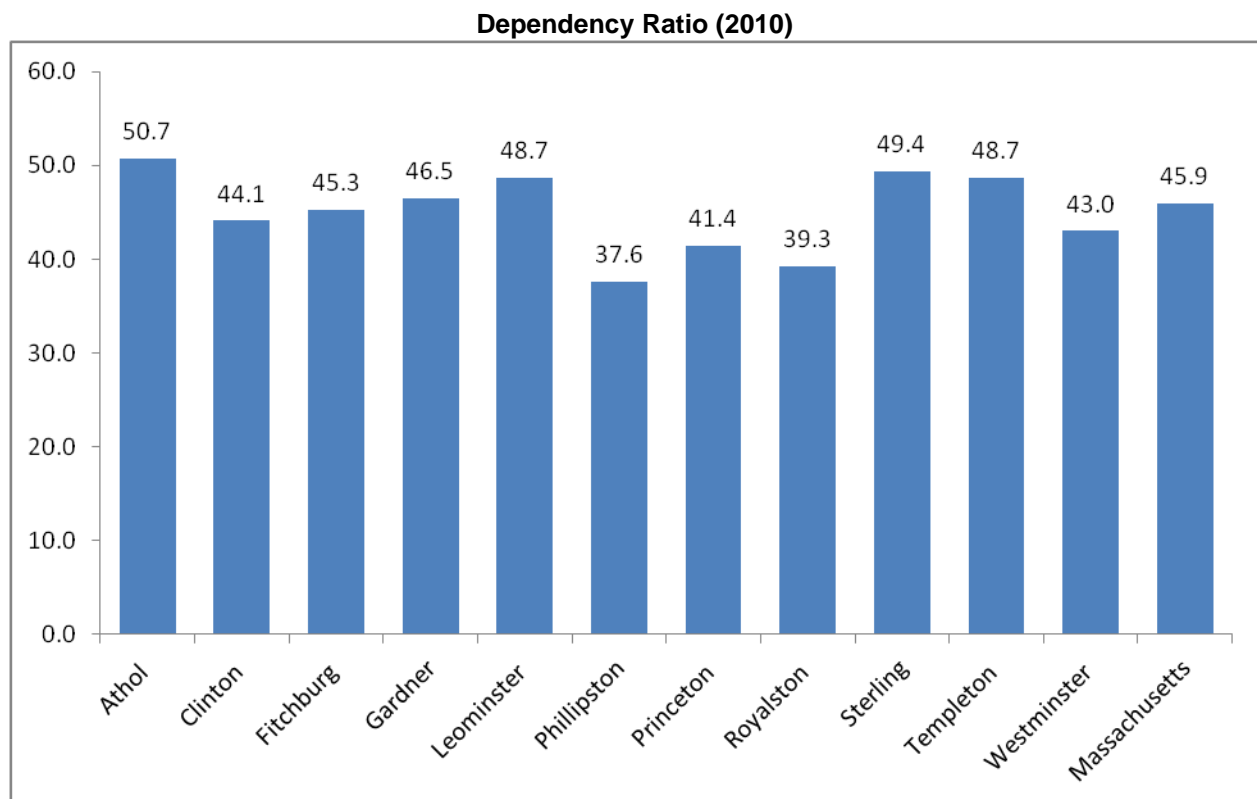
Percent of Population by 20 Year Age Group (2010)



Source: U.S. Census Bureau website (www.census.gov): 2010 Census, Summary File 1, Table DP-1.

Another important way of reporting on population statistics is called the dependency ratio. The dependency ratio is calculated as the sum of the population less than 15 and the population greater than 64 years of age, divided by the number of people between 15 and 64 years old in the population. It is designed to measure the dependent population (children and the elderly) as a proportion of the working population. As the ratio increases there may be an increased burden on the productive part of the population to maintain the upbringing and pensions of the economically dependent.

The dependency ratio for the Commonwealth of Massachusetts was 45.9%. Within the MPH service area, dependency ratios higher than that of the state were found in Athol, Gardner, Leominster, Sterling and Templeton, while rates lower than 40% were found in Phillipston and Royalston.



Source: U.S. Census Bureau website (www.census.gov): 2010 Census, Summary File 1, Table DP-1.

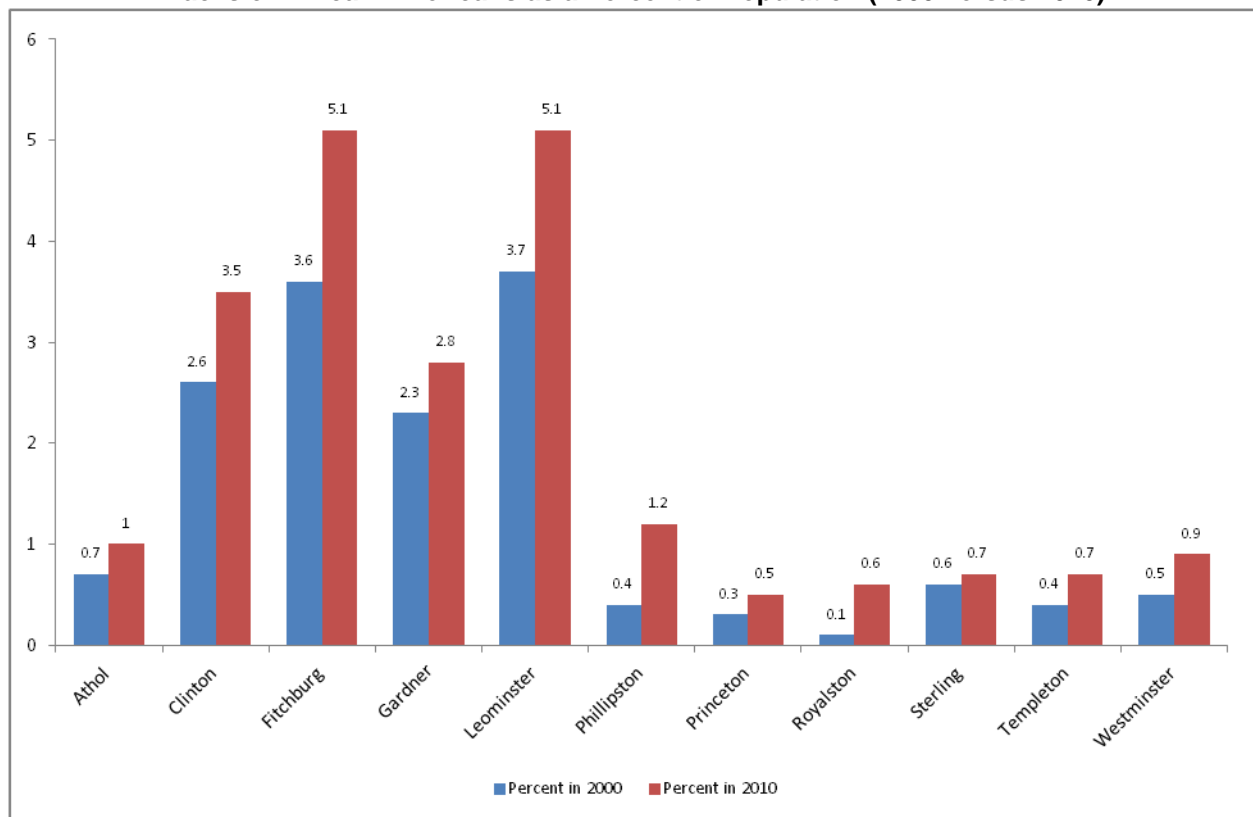
Racial/Ethnic Populations

Black or African American Population

According to data from the U.S. Census, within the Commonwealth of Massachusetts, the Black or African American population increased during the time period of 2000 to 2010 from 5.4% of the State's population to 6.6%. All of the cities/towns in the MPH service area also experienced an increase in their Black or African American populations during this time period.

The MPH entities with the most Blacks or African Americans as a percent of total population in 2010 were Fitchburg and Leominster, both at 5.1%. The MPH entities with the fewest Blacks or African Americans as a percent of total population in 2010 were the towns of Princeton (0.5%), Royalston (0.6%), Sterling (0.7%) and Templeton (0.7%).

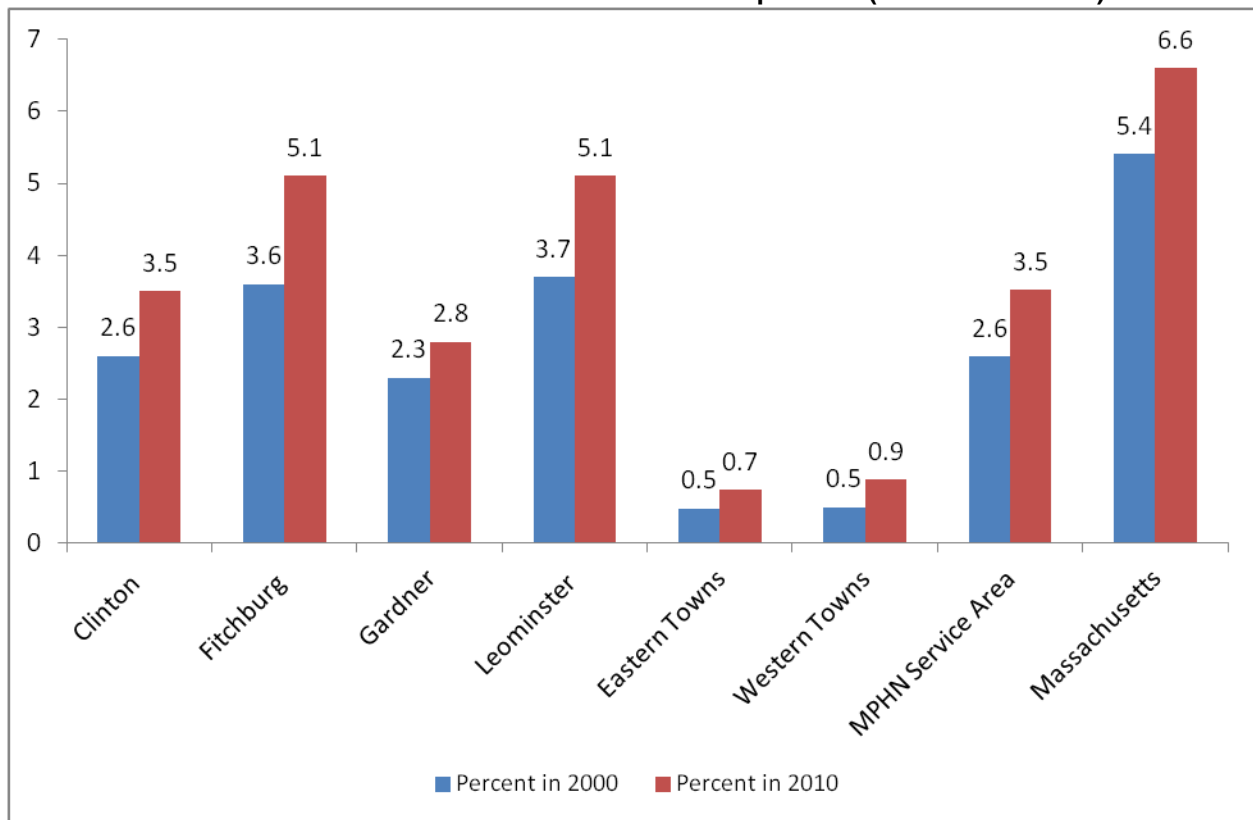
Blacks or African Americans as a Percent of Population (2000 versus 2010)



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

Overall, Blacks or African Americans made up a smaller percentage of the total population in each of the reporting regions than they did in the Commonwealth as a whole. The majority of the Black or African American population in the MPH service area resides in the cities of Fitchburg, Leominster and Gardner and the town of Clinton.

Blacks or African Americans as a Percent of Population (2000 versus 2010)



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

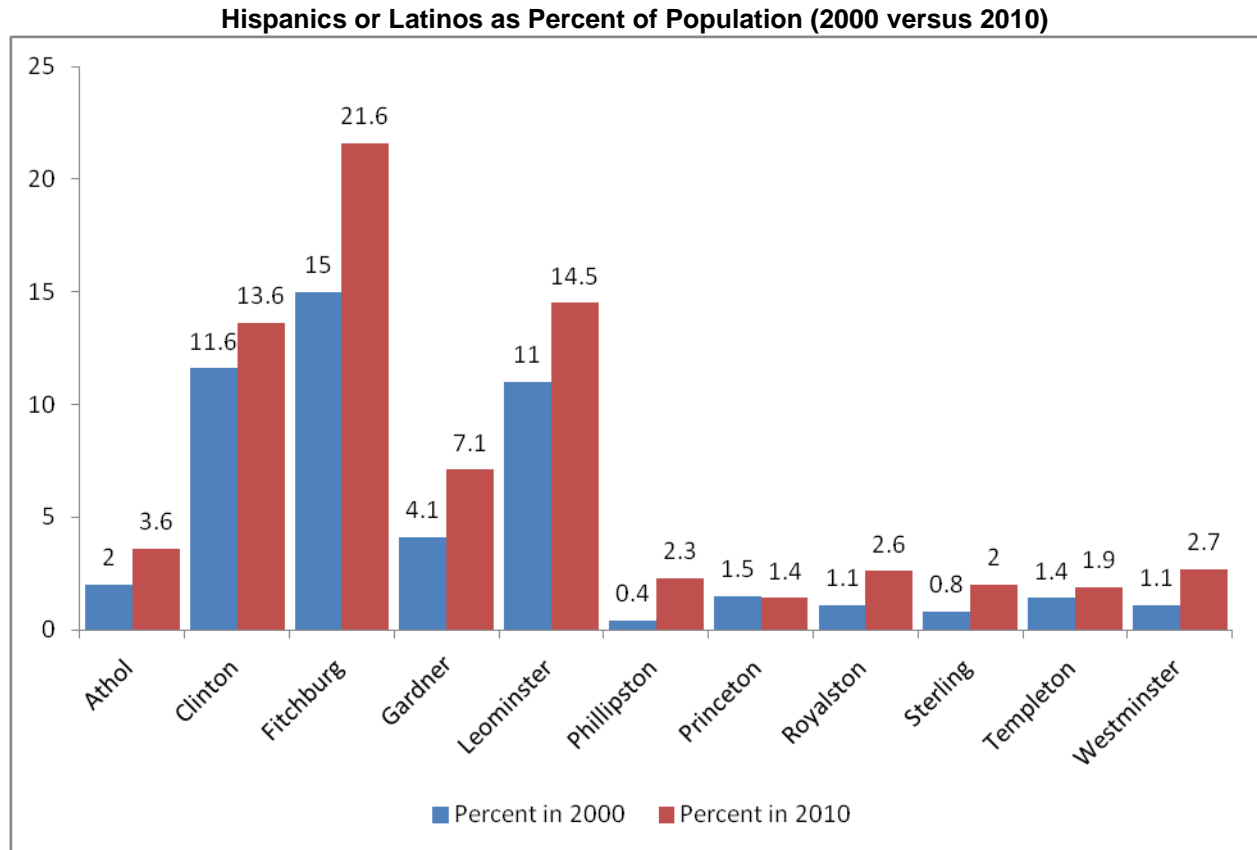
Within the Commonwealth of Massachusetts, the percentage of the population identified as Black or African American increased by 22% between 2000 and 2010. During this same time period, the percentage of the MPHN population identified as Black or African American increased by 35%. Among the reporting regions within the MPHN, the Western Towns experienced the greatest percentage increase in Black or African American residents, with an 80% increase, followed by increases Black or African American populations in Fitchburg of 42%, the Eastern Towns of 40% and Leominster of 38%.

On an individual town basis, Phillipston, Royalston, Templeton and Westminster all experienced large increases in the proportion of Black or African American residents between 2000 and 2010, but they were all based on relatively small overall numbers.

Hispanic or Latino Population

Within the Commonwealth of Massachusetts, the Hispanic or Latino population increased during the time period of 2000 to 2010 from 6.8% of the Commonwealth's population to 9.6%. All of the cities and towns in the MPHN Service Area also experienced an increase in their Hispanic or Latino populations during this time period. The entities with the most Hispanics or Latinos as a percent of total population in 2010 were Fitchburg (21.6%), Leominster (14.5%) and Clinton (13.6%). The MPHN entities with the fewest Hispanics or Latinos as a percent of total population in 2010 were Princeton (1.4%), Templeton (1.9%) and Sterling (2.0%).

Overall, Hispanics or Latinos made up a larger percentage of the total population in Fitchburg, Leominster and Clinton in 2010 than they did in the Commonwealth as a whole, with Fitchburg's Hispanic or Latino population at more than twice the Commonwealth's when measured as a percent of population.



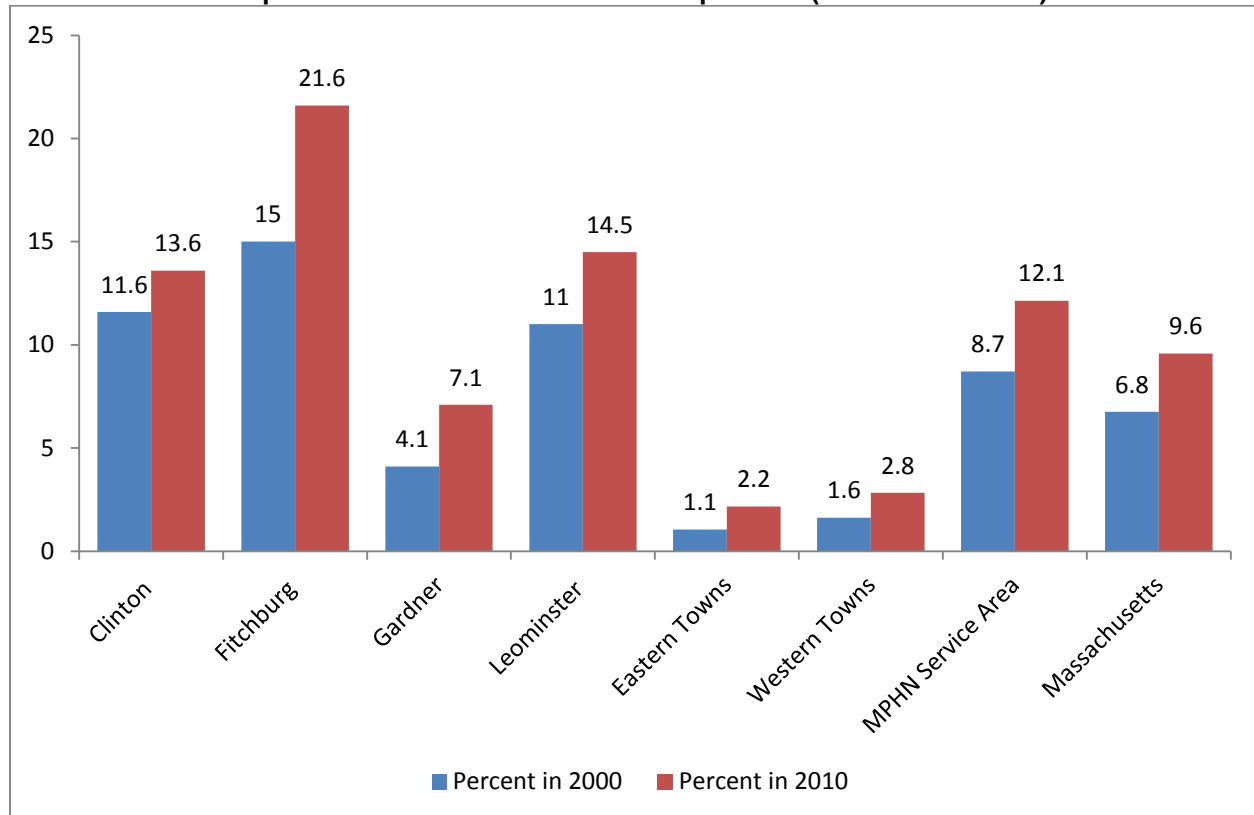
Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

Within the MPHN Service Area, the Hispanic or Latino population increased during the time period of 2000 to 2010 from 8.7% of the population to 12.1%, continuing to reflect a greater proportion of Hispanic or Latino residents in the area than in the State as a whole.

The percentage of the population identified as Hispanic or Latino in the Commonwealth increased by 41% between 2000 and 2010. During this same time period, the percentage of the MPHN population identified as Hispanic or Latino increased by 39%. Among the reporting regions within the MPHN, the Eastern Towns experienced the greatest increase in its proportion of Hispanic or Latino residents, with a 100% increase, followed by the Western Towns and Gardner with a 75% increase and a 73% increase, respectively.

On an individual town basis, Phillipston, Royalston, Sterling and Westminster all experienced very large increases in the proportion of Hispanic or Latino residents between 2000 and 2010, but they were all based on relatively small overall numbers.

Hispanics or Latinos as Percent of Population (2000 versus 2010)



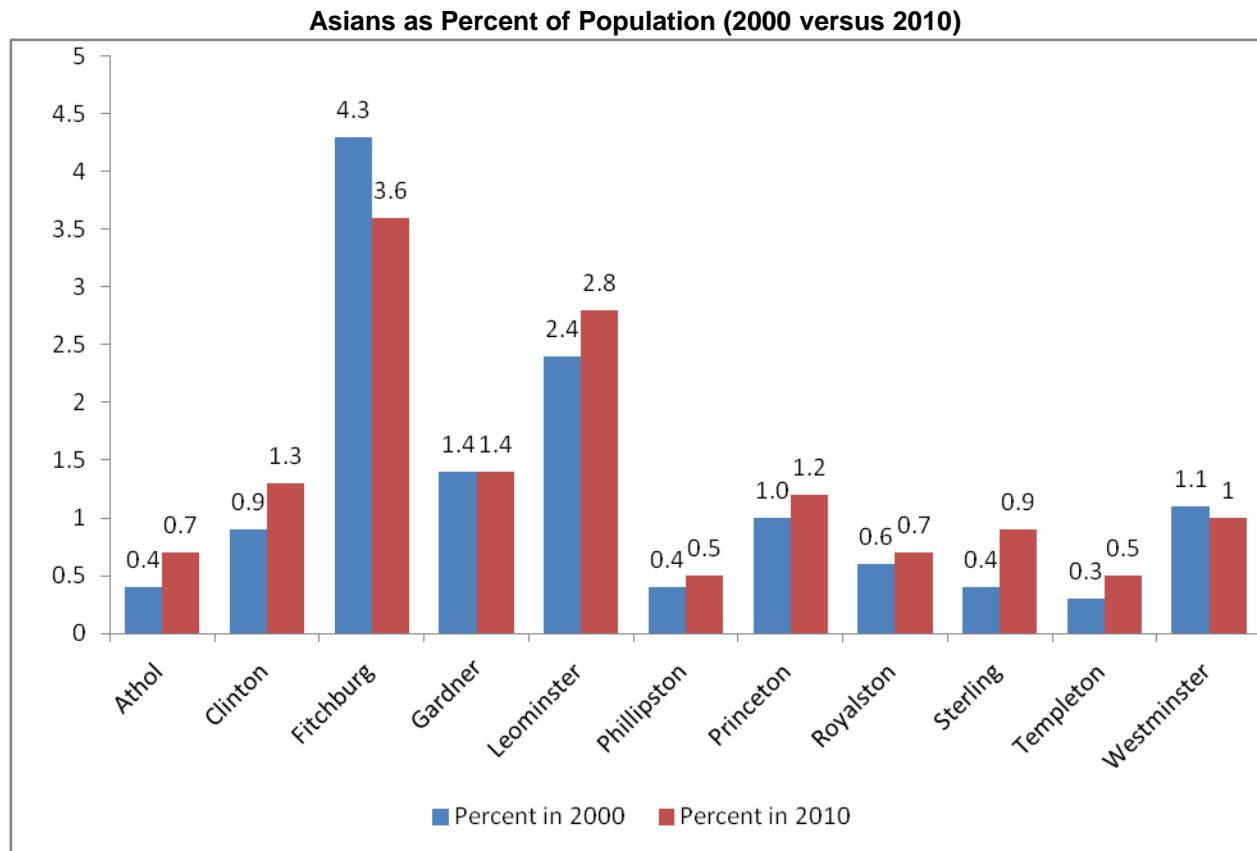
Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

Asian Population

Within the Commonwealth of Massachusetts, the Asian population increased during the time period of 2000 to 2010 from 3.8% of the Commonwealth's population to 5.3%. Most of the cities and towns in the MPH Service Area also experienced an increase in their Asian populations during this time period. However, the Asian population in Gardner remained steady at 1.4% of the population, while the Asian populations in Fitchburg and Westminister actually decreased during this time period from 4.3% of the population to 3.6% in Fitchburg and from 1.1% to 1% in Westminister. It should be noted, however, that the Westminister figures are based on small overall numbers.

The MPH communities with the most Asians as a percent of total population in 2010 were Fitchburg (3.6%) and Leominster (2.8%). The MPH entities with the fewest Asians as a percent of total population in 2010 were Phillipston and Templeton both at 0.5% and Athol and Royalston both at 0.7%.

Within the MPH N Service Area, the Asian population remained steady at 2.2% of the population during the time period of 2000 to 2010, continuing to reflect a smaller proportion of Asian residents in the area than in the State as a whole. In addition, all of the cities/towns in the MPH N service area had fewer Asians as a percent of total population in 2010 than did the Commonwealth as a whole.

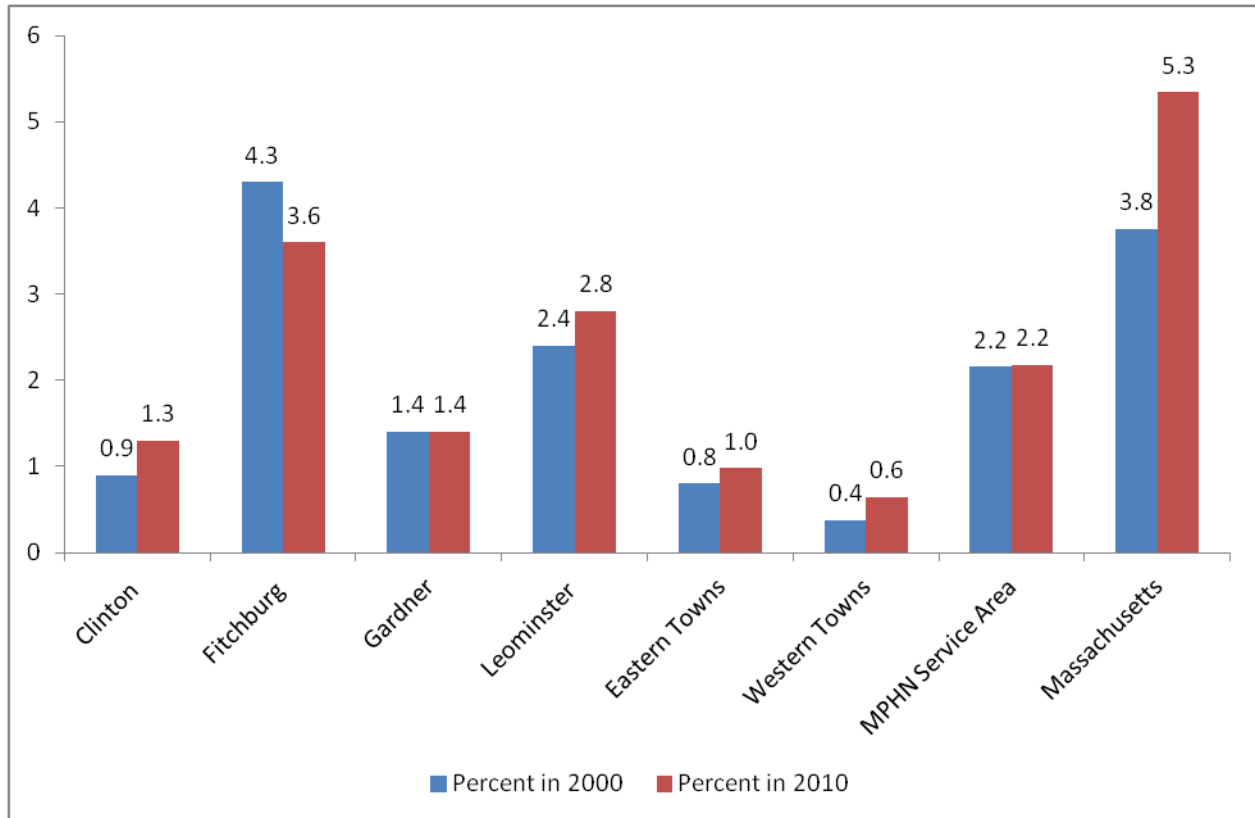


Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

The percentage of the population identified as Asian in the Commonwealth increased by 39% between 2000 and 2010. During this same time period, the percentage of the MPH N population identified as Asian did not change. Among the reporting regions within the MPH N, the Western Towns experienced the greatest increase in its proportion of Asian residents, with a 50% increase, followed by Clinton with a 44% increase.

On an individual town basis, Sterling experienced a 125% increase in the proportion of Asian residents between 2000 and 2010, while Athol (75% increase) and Templeton (67% increase) also experienced large percentage increases in Asian residents. However, these figures were based on relatively small overall numbers.

Asians as Percent of Population (2000 versus 2010)



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

Overall Racial/Ethnic Populations

It should be noted that the information provided here for specific racial and ethnic groups was obtained directly from the U.S. Census website and for consistency of reporting, utilized the same report for the two time periods, one with 2000 census data and one with 2010 census data. As a result, the comparisons across these time periods are consistent.

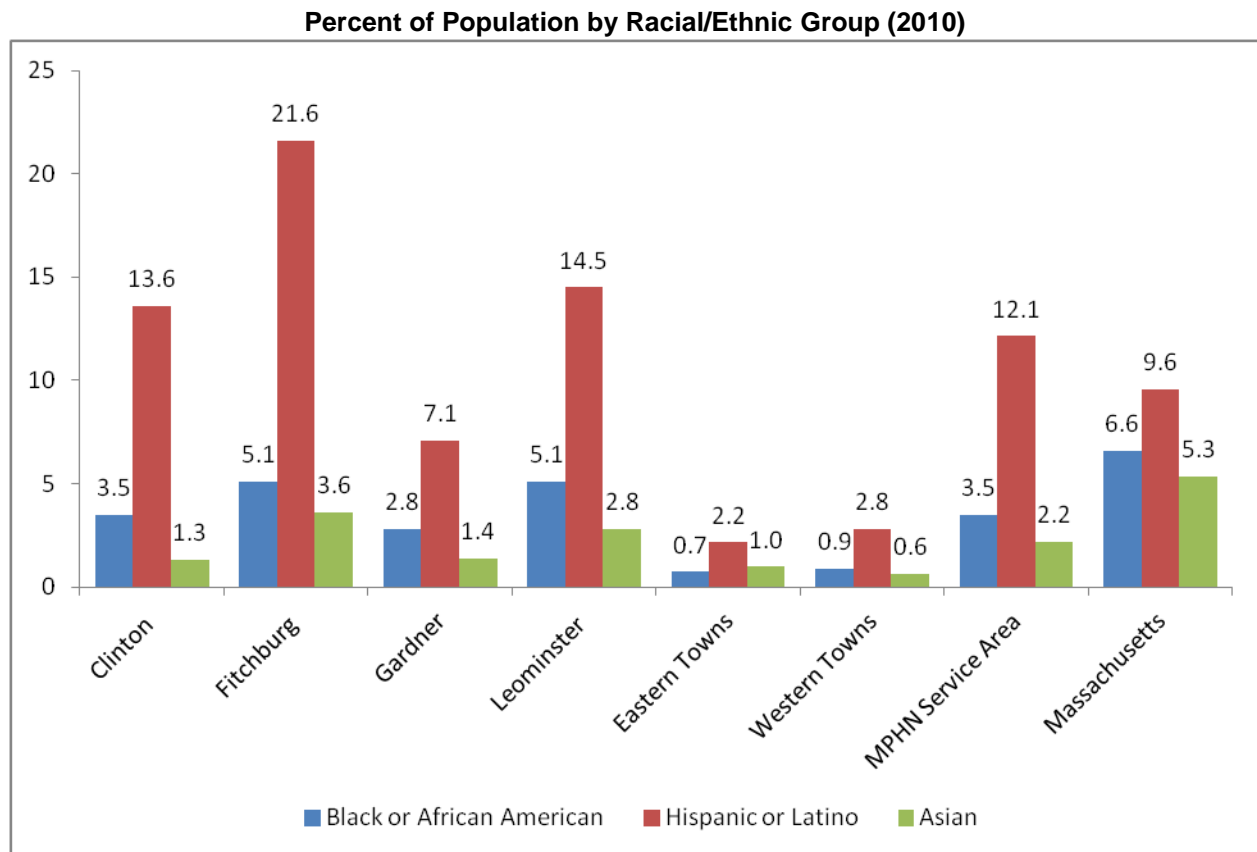
The names/descriptive terms for the racial and ethnic groups in this report are taken from those used by the U.S. Census. In addition, the figures representing Blacks or African Americans and those representing Asians are taken from individuals who represented themselves as one race,

this race being either “Black or African American” or “Asian”. Because the Hispanic or Latino designation is considered to be an ethnicity, these figures were taken from the designation of “Hispanic or Latino (of any race)”.

There are other race and ethnic group breakdowns available in the U.S. Census data, but only the major ones, representing significant populations in the region, have been reported here.

It is also worth noting that there were some other categories that may be of interest. In the 2010 census, 4.7% of the population in the Commonwealth of Massachusetts identified themselves as “Some other race”. Three of the communities in the MPH service area had over 5% of their residents define themselves as “Some other race”, with Fitchburg at 9.1%, Clinton at 5.5% and Leominster at 5.3%.

Also in the 2010 census, 2.6% of the population in the Commonwealth of Massachusetts identified themselves as “Two or more races”. Four of the entities in the MPH service area had over 2% of their residents define themselves as “Two or more races”, with Fitchburg at 3.7%, Leominster at 2.8%, Clinton at 2.3% and Gardner at 2.2%.



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 1, Table QT-P3 and 2010 Census, Summary File 1, Table QT-P3.

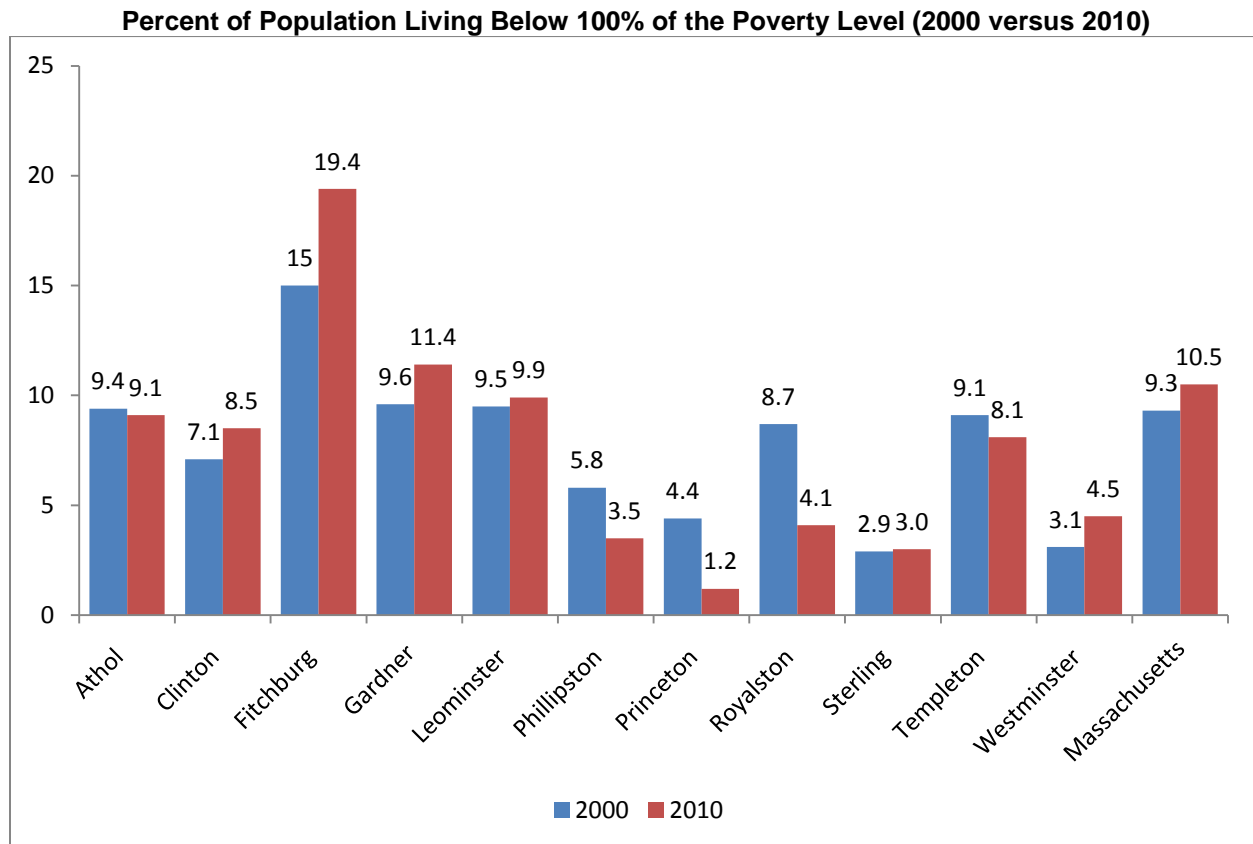
As shown in the graph above, within the MPH N reporting regions, Hispanics or Latinos comprise the racial/ethnic minority group with the highest percentage of population. Blacks or African Americans are the racial/ethnic minority group with the second highest percentage of population within the Commonwealth and within most of the MPH N reporting regions. However, Asians are the racial/ethnic minority group with the second highest percentage of population in the Eastern Towns.

SOCIODEMOGRAPHICS

Income

Population Living Below 100% of the Poverty Level

One way to assess the financial status of a community is to examine the percent of the population living below 100% of the poverty level. According to data from the 2000 US Census, 9.3% of the population in Massachusetts was living below 100% of the poverty level in that year. By 2010, that number had increased to 10.5% of the population of the Commonwealth.



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 4, Table DP-3 and American Community Survey 2006 – 2010, Summary File 3, Table DP-03

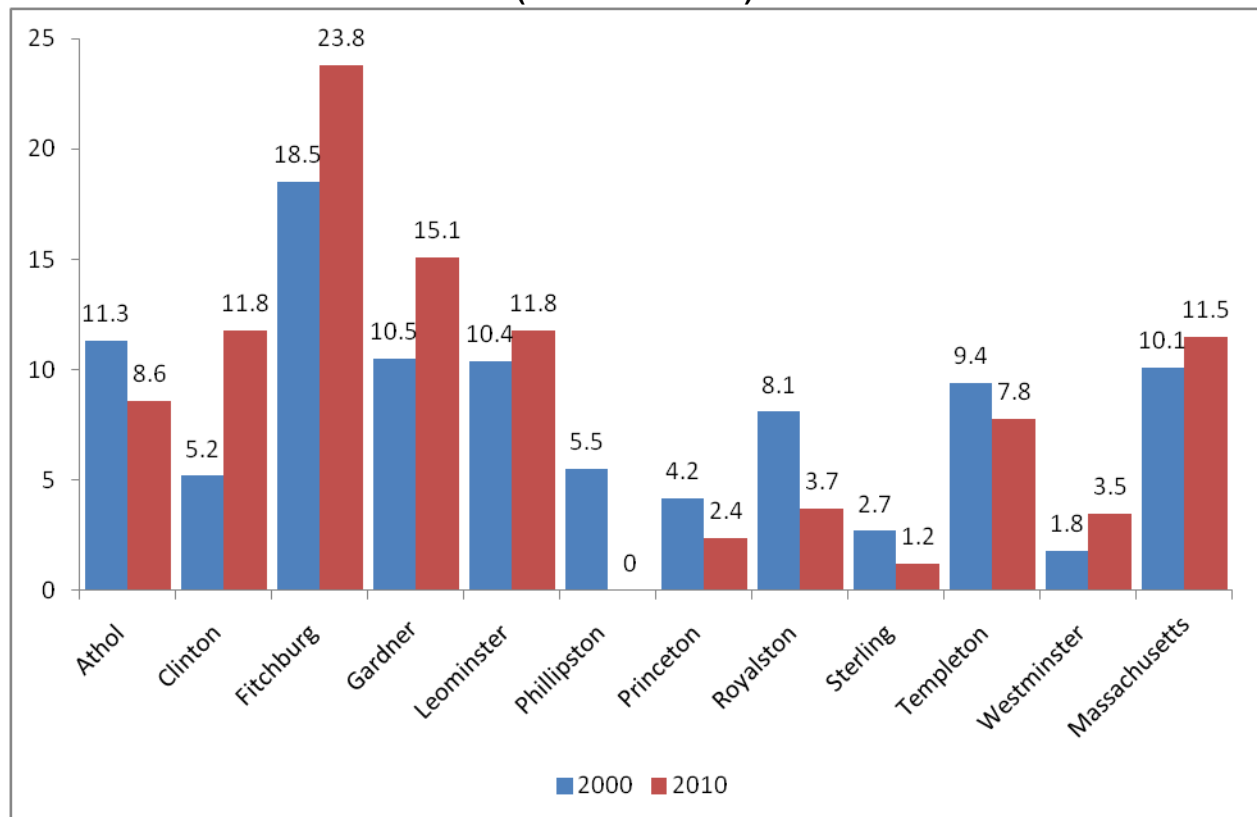
Among the cities and towns within the MPH region, there is a wide range in the proportion of people living below 100% of the poverty level. The communities with the largest proportion of population below 100% of the poverty level in 2010 were Fitchburg at 19.4% (up from 15% in 2000) and Gardner at 11.4% (up from 9.6% in 2000). Leominster also had a poverty rate of close to 10% in 2010 (up from 9.5% in 2000). Westminster and Clinton are also noteworthy due to increases in the proportion of their populations living below 100% of the poverty level, with Westminster seeing a 45% increase and Clinton seeing a 20% increase.

The lowest poverty rate in the region in 2010 was found in Princeton at 1.2% (down from 4.4% in 2000; a decrease of 73%). Sterling with a poverty rate of 3% in 2010 (up slightly from a rate of 2.9% in 2000) also had a low percentage of population living below 100% of the poverty level in 2010. The poverty rates in Royalston and Phillipston are also worthy of note due to their drop from 2000 to 2010, with Royalston experiencing a 53% drop in its poverty rate and Phillipston experiencing a 40% decrease.

Families with Children Living Below 100% of the Poverty Level

When families with related children under the age of 18 are considered, the poverty rates in the Commonwealth were even higher. In 2000, 10.1% of families with related children under the age of 18 in the Commonwealth of Massachusetts were living below 100% of the poverty level. By 2010, that number had increased to 11.5% of families with children in the Commonwealth.

**Percent of Families with Related Children under 18 Living Below 100% of the Poverty Level
(2000 versus 2010)**



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 4, Table DP-3 and American Community Survey 2006 – 2010, Summary File 3, Table DP-03

Within the MPH service area, there were several communities in which the percentage of families with related children living below 100% of the poverty level in 2010 was higher than that of the State. The poverty rate among families with children in Fitchburg at 23.8% was more than double that of the Commonwealth as a whole. Fitchburg experienced a 29% increase in the percent of families with related children under the age of 18 living below the 100% of the poverty level between 2000 and 2010.

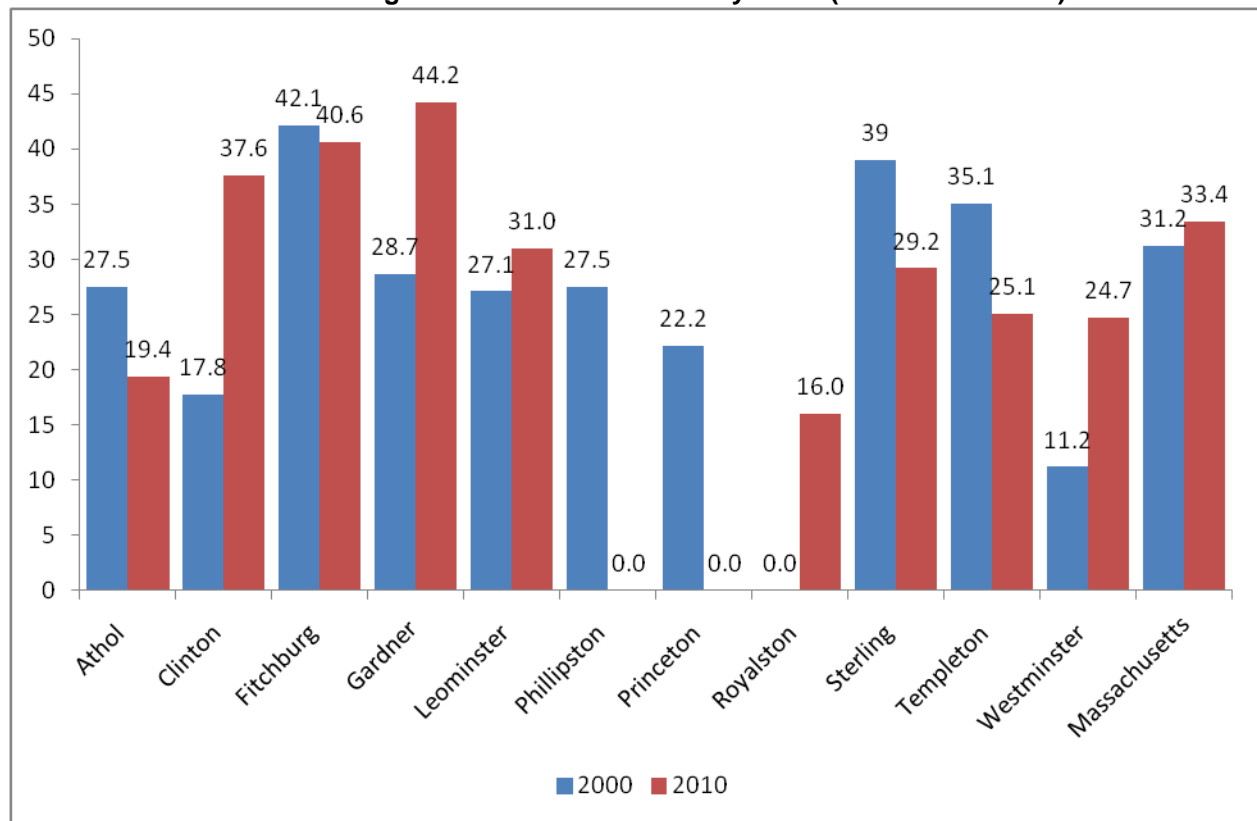
Gardner's poverty rate among families with children rose by 44% between 2000 and 2010, from 10.5% to 15.1%, while Clinton's poverty rate more than doubled between 2000 and 2010 to 11.8%. Leominster (11.8%) also reported a higher poverty rate among families with children than the Commonwealth as a whole. Westminster is noteworthy due to a 94% increase in the proportion of families with children living below 100% of the poverty level.

The lowest poverty rate in the region in 2010 for families with related children under the age of 18 was found in Phillipston at 0.0% (down from 5.5% in 2000). Sterling had a low poverty rate among families with children of 1.2% in 2010 (down 56% from a rate of 2.7 in 2000). The poverty rates in Royalston and Princeton are worthy of note due to their drop from 2000 to 2010, with Royalston experiencing a 54% drop in its poverty rate and Princeton experiencing a 43% decrease.

Families with Female Head of Household with Children Living Below 100% of the Poverty Level

When families with a female head of household (no husband present) with related children under the age of 18 are considered, the poverty rates in the Commonwealth almost tripled from that of all families with related children under the age of 18. In 2000, 31.2% of families with a female head of household and related children under the age of 18 in the Commonwealth of Massachusetts were living below 100% of the poverty level. By 2010, that number had increased to 33.4% of the families with children and a female head of household in the Commonwealth.

Percent of Families with Female Head of Household (no Husband Present) with Related Children under 18 Living Below 100% of the Poverty Level (2000 versus 2010)



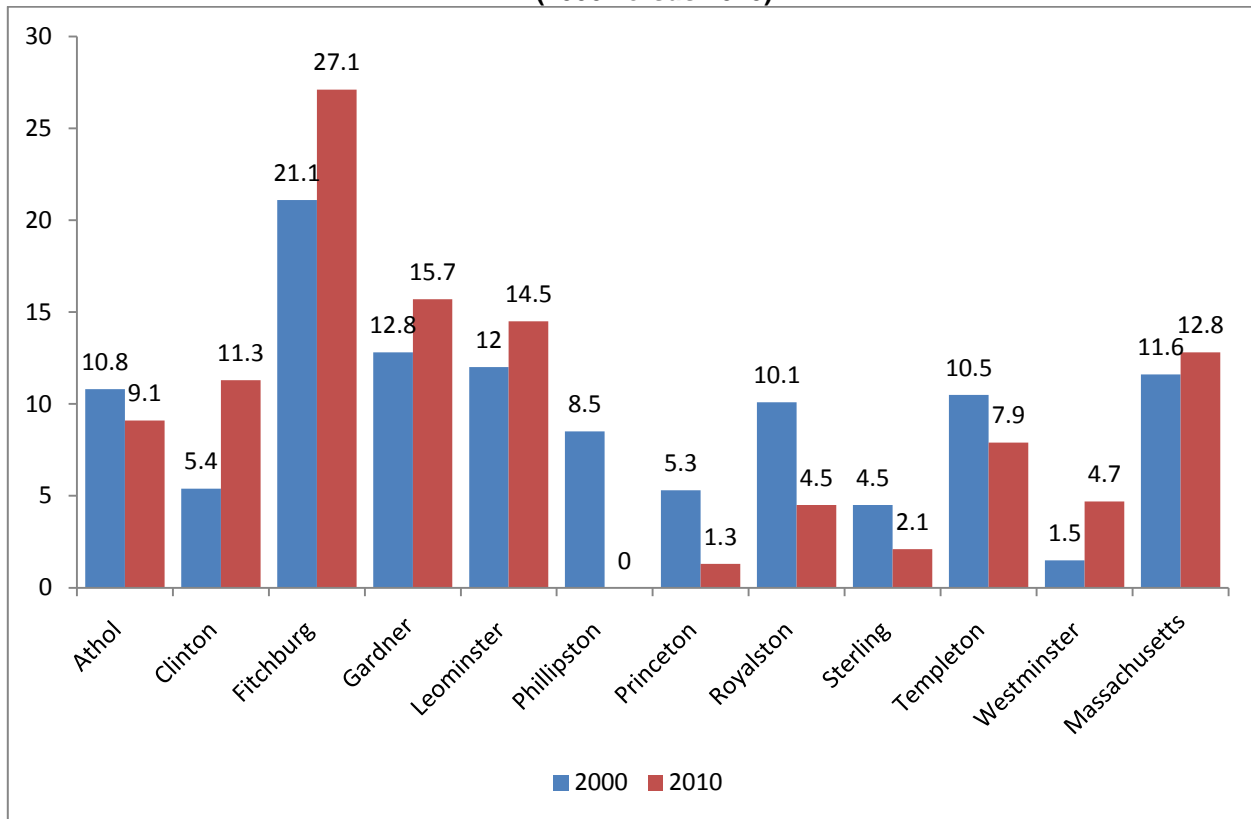
Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 4, Table DP-3 and American Community Survey 2006 – 2010, Summary File 3, Table DP-03

Within the MPHN service area, there were several communities in which the percentage of families with a female head of household and related children living below 100% of the poverty level in 2010 was higher than that of the State. The poverty rate among families with a female head of household and related children in Gardner was 44.2 % in 2010, up 54% from 28.7% of such households in 2000. In Fitchburg the poverty rate in 2010 was 40.6% among families with a female head of household and related children, down slightly from 42.1% in 2000. Clinton experienced a poverty rate in 2010 among families with a female head of household and related children of 37.6%, up 111% from a rate of 17.8% in 2000. Leominster also reported a high poverty rate among families with a female head of household and related children in 2010 of 31%, up from 27.1% in 2000. Westminster is noteworthy due to a 121% increase in the proportion of families with a female head of household and related children living below 100% of the poverty level from 11.2% in 2000 to 24.7% in 2010. Royalston, with a poverty rate of 16% in 2010, is noteworthy due to its 0.0% poverty rate in 2000 for this population.

The lowest poverty rates in the region in 2010 for families with a female head of household and related children under the age of 18 were found in Phillipston at 0.0% (down from 27.5% in 2000) and Princeton at 0.0% (down from 22.2% in 2000). Athol, Sterling and Templeton all experienced decreases in the poverty rate in 2010 among families with a female head of household and related children of 29%, 25% and 28%, respectively, from 2000 rates.

Related Children Living Below 100% of the Poverty Level

Percent of Related Children under the Age of 18 Living Below 100% of the Poverty Level
(2000 versus 2010)



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 4, Table DP-3 and American Community Survey 2006 – 2010, Summary File 3, Table DP-03

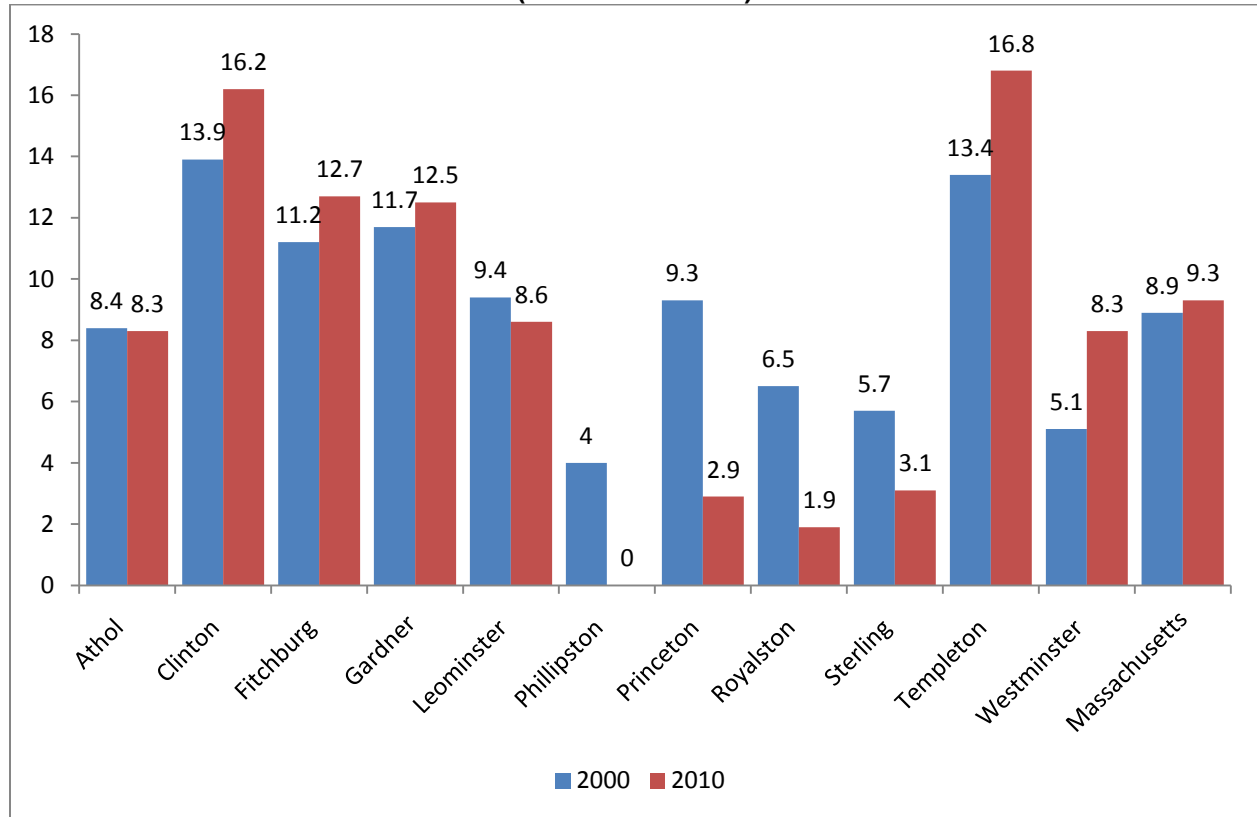
According to data from the U.S. Census in 2000, 11.6% of related children under the age of 18 in Massachusetts were living below 100% of the poverty level. By 2010, that number had increased by 10% to 12.8% of related children.

Within the MPH service area, there were several communities in which the percentage of related children living below 100% of the poverty level in 2010 was higher than that of the Commonwealth. The poverty rate among related children in Fitchburg was 27.1% in 2010, more than double that of the State and up 28% from 2000. In Gardner the poverty rate in 2010 was 15.7% among related children, up 23% from 12.8% in 2000. Leominster experienced a poverty rate in 2010 among related children of 14.5%, up 21% from a rate of 12% in 2000. Westminster is noteworthy due to a 213% increase in the proportion of related children living below 100% of the poverty level from 1.5% in 2000 to 4.7% in 2010, as was Clinton with a poverty rate of 11.3% in 2010, up 109% from a rate of 5.4% in 2000 for this population.

The lowest poverty rates in the region in 2010 for related children under the age of 18 were found in Phillipston at 0% (down from 8.5% in 2000), Princeton at 1.3% (down from 5.3% in 2000) and Sterling at 2.1% (down from 4.5% in 2000). Athol, Royalston and Templeton all experienced decreases in the poverty rate in 2010 among related children of 16%, 55% and 25%, respectively from 2000 rates.

Senior Citizens Living Below 100% of the Poverty Level

Percent of Senior Citizens Age 65 and Over Living Below 100% of the Poverty Level
(2000 versus 2010)



Source: U.S. Census Bureau website (www.census.gov): 2000 Census, Summary File 4, Table DP-3 and American Community Survey 2006 – 2010, Summary File 3, Table DP-03

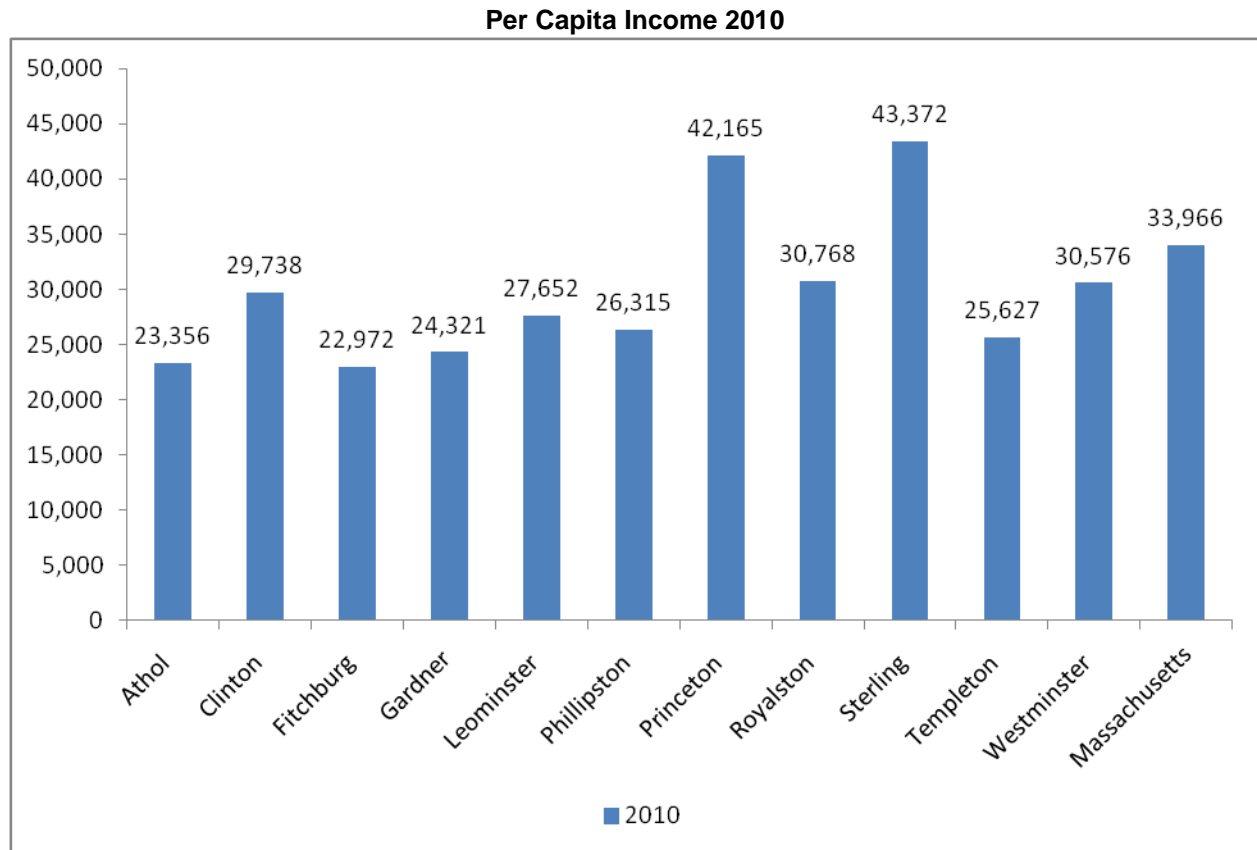
According to data from the U.S. Census in 2000, 8.9% of senior citizens age 65 and over in Massachusetts were living below 100% of the poverty level. By 2010, that number had increased to 9.3% of senior citizens.

Within the MPH service area, there were several communities in which the percentage of senior citizens living below 100% of the poverty level in 2010 was higher than that of the Commonwealth. The poverty rate among senior citizens in Templeton was 16.8% in 2010, up 25% from 2000. In Clinton the poverty rate in 2010 was 16.2% among senior citizens, up 17% from 13.9% in 2000. Fitchburg experienced a poverty rate in 2010 among senior citizens of 12.7% and Gardner had a poverty rate among senior citizens of 12.5% in 2010. Westminster is noteworthy due to a 63% increase in the proportion of senior citizens living below 100% of the poverty level from 5.1% in 2000 to 8.3% in 2010.

The lowest poverty rates in the region in 2010 for senior citizens age 65 and older were found in Phillipston at 0% (down from 4% in 2000) and Royalston at 1.9% (down from 6.5% in 2000). Princeton and Sterling experienced decreases in the poverty rate in 2010 among senior citizens of 69% and 46%, respectively from 2000 rates.

Per Capita Income

Another indicator of a community's financial health is its per capita income. In Massachusetts, the per capita income in 2010 was \$33,996. Within the MPH service area only Princeton at \$42,165 and Sterling at \$43,372 had per capita incomes that were higher than the Commonwealth as a whole.



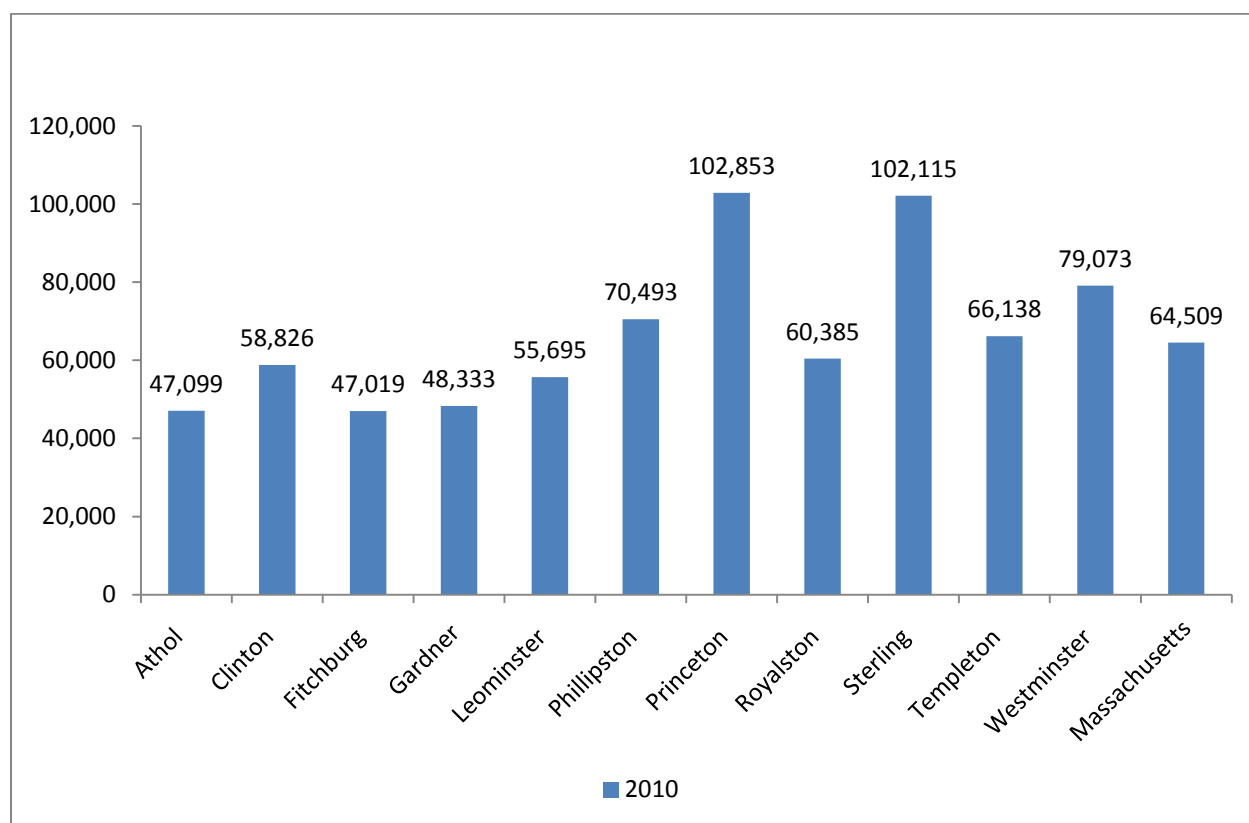
Source: U.S. Census Bureau website (www.census.gov): American Community Survey 2006 – 2010, Summary File 3, Table DP-03

Three of the communities in the MPH region had per capita incomes of less than \$25,000, with Fitchburg at \$22,972, Athol at \$23,356 and Gardner at \$24,321. Four of the entities, Clinton, Leominster, Phillipston and Templeton, had per capita incomes in 2010 between \$25,000 and \$30,000, while Royalston and Westminster reported per capita incomes of just over \$30,000.

Median Household Income

The final indicator of a community's financial health that we will explore here is median household income. In Massachusetts, the median household income in 2010 was \$64,509. Within the MPH service area, five towns, Princeton at \$102,853, Sterling at \$102,115, Westminster at \$79,073, Phillipston at \$70,493 and Templeton at \$66,138, all had median household incomes greater than that of the Commonwealth as a whole.

Median Household Income 2010



Source: U.S. Census Bureau website (www.census.gov): American Community Survey 2006 – 2010, Summary File 3, Table DP-03

Three of the communities in the MPH region had median household incomes of less than \$50,000, with Fitchburg at \$47,019, Athol at \$47,099 and Gardner at \$48,333. Clinton and Leominster had median household incomes in 2010 between \$50,000 and \$60,000, while Royalston reported median household income of just over \$60,000.

While “poverty” in and of itself was not explicitly mentioned by a substantial number of Focus Group or Key Informant Interview participants as a factor impacting personal or community health, factors associated with limited income were prevalent in discussions regarding barriers to achieving good health. Specifically, the cost of and reliable access to, healthy foods and health care were cited as significant barriers to good health by Focus Group participants and Key Informants.

“Co-pay for medical service, even if low, creates a barrier for some of our residents.”

“There is no opportunity to visit doctors during normal working hours since most employees do not have flexible hours to leave work.”

“We are lacking in the number of physicians available and it is hard for small towns to attract new doctors to move out this way.”

“It’s hard to find good, affordable food.”

“Healthy food is expensive.”

“Children are a product of their parents, if we can’t buy healthy food, our kids won’t learn how to eat healthy food.”

Transportation

According to the Montachusett Regional Planning Commission’s 2012 Regional Transportation Plan, concerns have been raised by members of the community, specifically from the Cleghorn Neighborhood of Fitchburg and customers in Leominster, regarding MART’s rate of frequency and timings for connections to the routes that service these areas. Despite an increase in ridership, MART’s Link Service maybe in jeopardy due to the inconsistency of available funds. MART is examining alternatives proposed by private transit companies to form a partnership that will reduce costs and improve services. Demands for fixed route services have increased from towns such as Westminster, Lunenburg, and the working community on Devens. The towns of Littleton and Boxborough would also like to see shuttle services to the commuter rail stations in Littleton and Acton. The problem remains of where to obtain the funds to increase and maintain these services. Adding fixed route services to these towns would be increasing their local assessments, which the towns cannot afford in the current economy. What limits MART from making these service changes is the ability to receive adequate operational funding now and in future years. Many grants are available thru US Department of Transportation (USDOT), but these opportunities only allow MART to access capital funds and not operating funds. The level funding, or only minor increases, in State Contract Assistance from the Commonwealth only goes further in reducing, not increasing, service. Comments from Focus Group participants and Key Informants further support frustration regarding reliable access to transportation.

“There is no public transportation in town.”

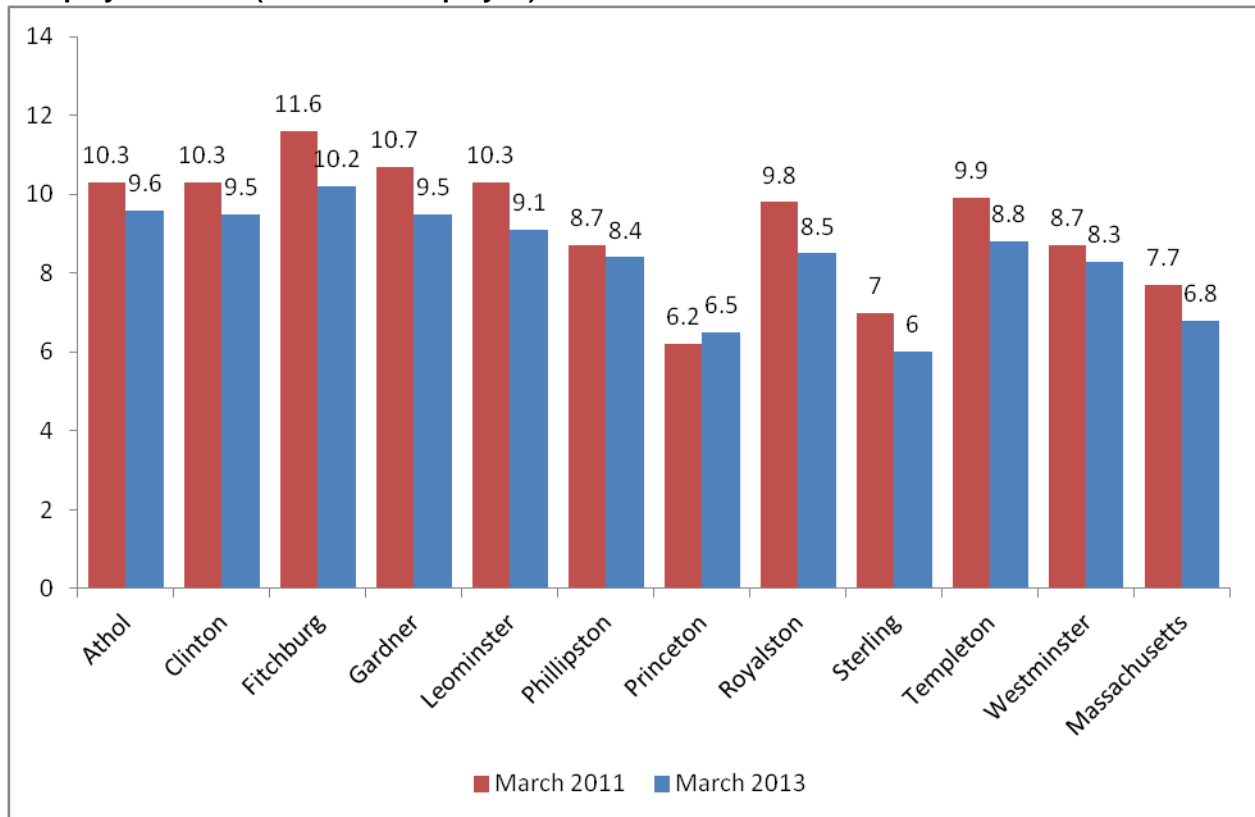
“If we call the MART, we have to schedule it a day or two in advance, wait for it, go to the doctor and wait, and then wait for the MART to come back for pickup. This can take many hours if not the entire day.”

Unemployment Rate

As the MPH region, along with the Commonwealth and the country as a whole, continues its slow recovery from the financial crisis of 2008 – 2010, it is evident from the poverty data presented previously in this report that this recovery has left many people behind. As of March 2013, the unemployment rate in Massachusetts was 6.8%, down 0.9 percentage points from the rate of 7.7% in March 2011. Overall, the unemployment rate in the MPH service area was 9.2% in March 2013, 2.4 percentage points higher than that of the Commonwealth as a whole.

All of the cities and towns in the MPH service area experienced a drop in unemployment rates between March of 2011 and March of 2013, with the exception of Princeton. However, Princeton's comparatively low unemployment rate of 6.2% in March 2011 rose slightly to 6.5% in March 2013, still staying below the unemployment rate of the Commonwealth and all of the other communities in the MPH region except Sterling.

Unemployment Rate (Percent Unemployed) March 2013 versus March 2011



Source: Commonwealth of Massachusetts, Executive Office of Workforce and Labor Development website (http://lmi2.detma.org/lmi/lur_a.asp)

In March 2011, Princeton and Sterling were the only two entities in the MPH service area to experience unemployment rates lower than the Commonwealth as a whole. This trend continued in March 2013.

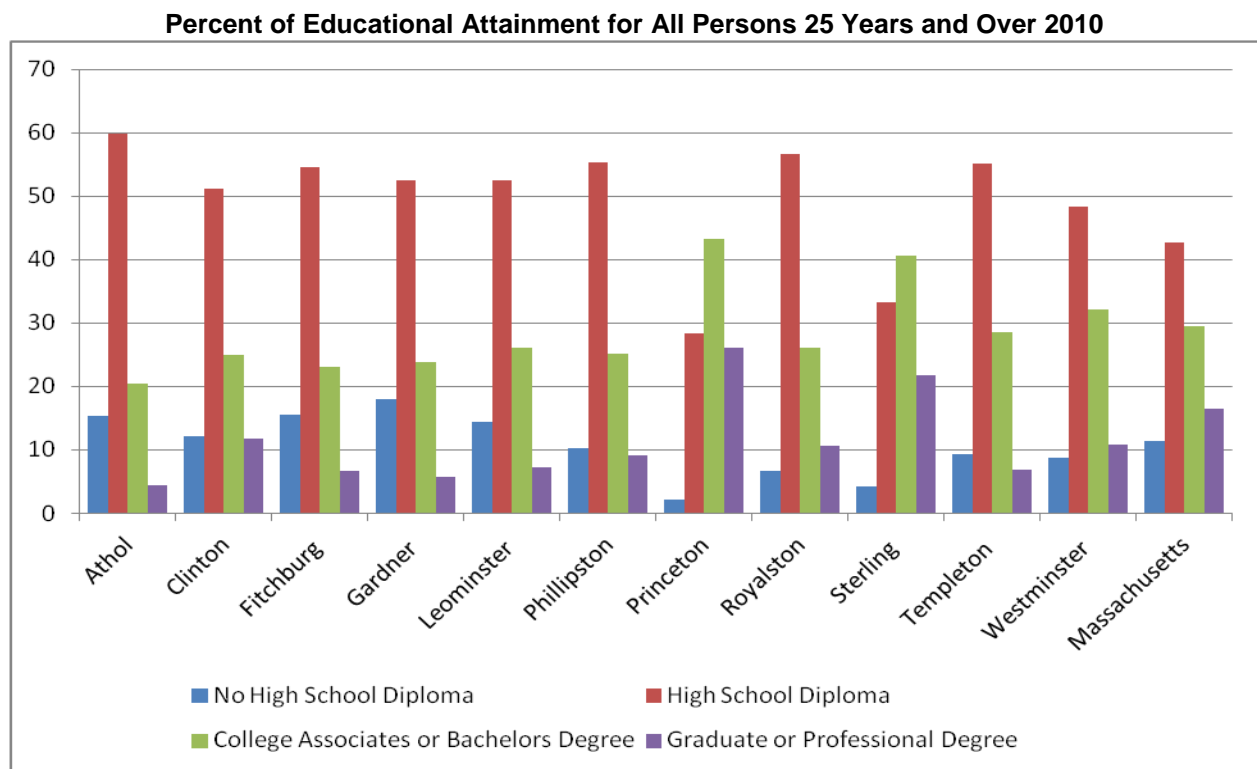
At both time periods, Fitchburg experienced the highest unemployment rate in the region, with a rate of 11.6% in March 2011 (3.9 percentage points above the State) and a rate of 10.2% in March 2013 (3.4 percentage points above the State). On a positive note, Fitchburg also experienced the largest drop in unemployment during this time period, with a decrease of 1.4 percentage points. The same MPHN cities and towns experienced high unemployment rates during both time periods, with Athol, Clinton, Gardner and Leominster all reporting unemployment rates of over 10% in March 2011 and over 9% in March 2013, all considerably higher than the Commonwealth as a whole. The positive news is that all of these entities reported a decrease in unemployment between March 2011 and March 2013, with Gardner and Leominster each reporting drops in unemployment rates of 1.2 percentage points.

Phillipston, Royalston, Templeton and Westminster all reported unemployment rates in March 2013 which were above 8%, but were lower than those reported in March 2011. The largest decrease in unemployment among these towns was reported in Royalston with a 1.3 percentage point decrease, followed by Templeton with a 1.1 percentage point decrease in unemployment between March 2011 and March 2013.

Education

Educational Attainment

An important factor in looking at the health of a region is the educational attainment of the residents. When considering the educational attainment of all residents age 25 and over, the 2010 census found that within Massachusetts, 11.3% of the residents aged 25 and over had no high school diploma.



Source: U.S. Census Bureau website (www.census.gov): American Community Survey 2006 – 2010, Summary File 3, Table S1501

Within the MPHN service area the highest percentages of residents age 25 and over with no high school diploma were found in Gardner at 18%, Fitchburg at 15.6% and Athol at 15.3%. Leominster and Clinton also had rates of residents 25 years and older without a high school diploma which were higher than that of the Commonwealth, at 14.4% and 12.1%, respectively.

The lowest rates of residents aged 25 and over without a high school diploma in the region were reported in Princeton at 2.2%, Sterling at 4.3% and Royalston at 6.7%. Westminster at 8.8%, Templeton at 9.4% and Phillipston at 10.3% all reported rates of residents 25 years and older without a high school diploma that were lower than the rate reported for the Commonwealth as a whole.

Within Massachusetts, 42.7% of the residents aged 25 and over had a high school diploma, but no additional degrees. This figure included residents who passed a high school equivalency exam. Within the MPHN service area, 9 of the 11 communities reported that over 48% of residents age 25 and over had just a high school diploma, with the highest rates found in Athol at 59.8% and Royalston at 56.7%. Only two communities, Princeton at 28.4% and Sterling at 33.3% reported rates of residents 25 years and older with just a high school diploma which were lower than that of the Commonwealth.

At the next educational level, 29.5% of Massachusetts residents age 25 and older reported having an associate's or bachelor's degree. Princeton at 43.3%, Sterling at 40.6% and Westminster at 32.1% reported rates of residents with associate's or bachelor's degrees higher than that of the Commonwealth. The lowest rates of residents with associate's or bachelor's degrees were reported in Athol at 20.4%, Fitchburg at 23.1%, Gardner at 23.8% and Clinton at 24.9%.

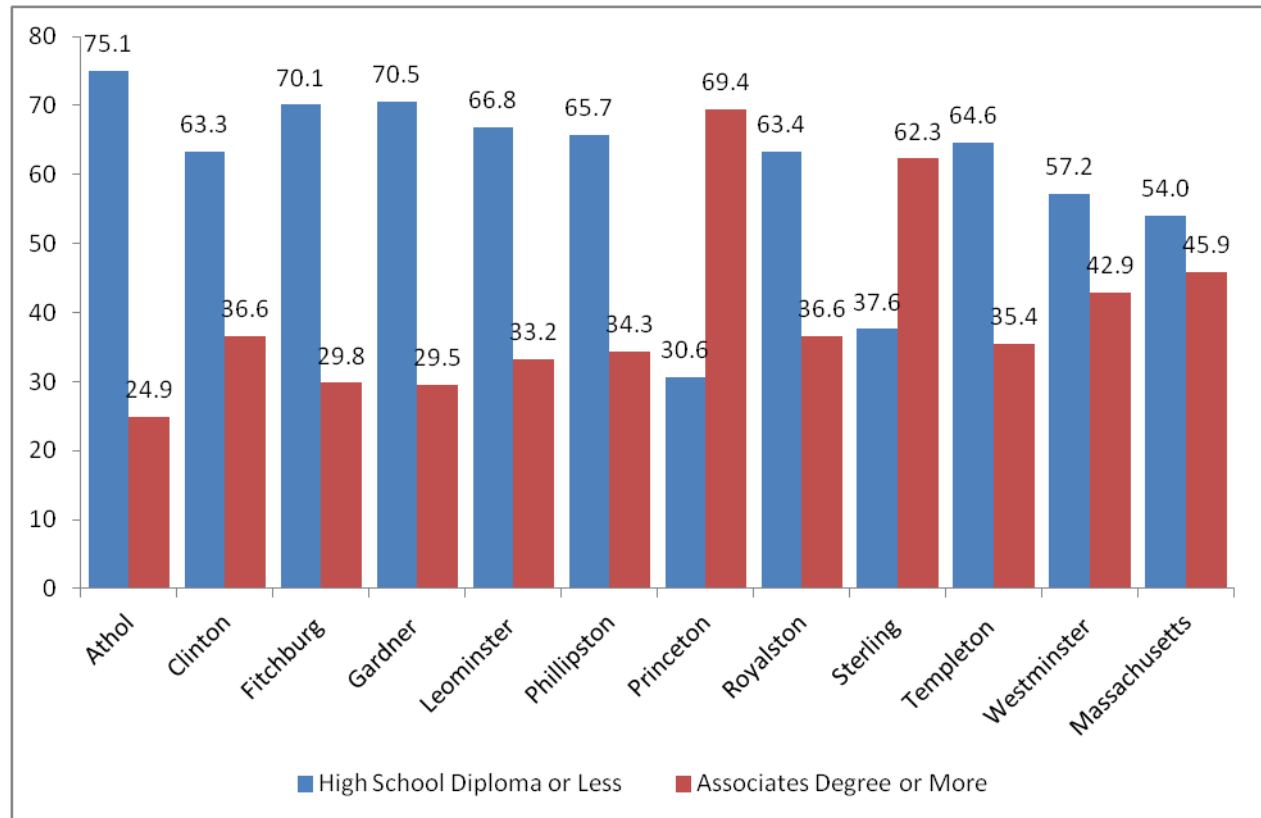
For the highest level of educational attainment of a master's or professional degree, 16.4% of Massachusetts residents age 25 and over reported this status in 2010. Princeton at 26.1% and Sterling at 21.7% each reported rates of residents with these advanced degrees that were higher than the State overall. The other 9 entities in the MPHN service area reported rates of residents with advanced degrees which were lower than that of the Commonwealth. The lowest rates of residents age 25 and older with a master's or professional degree were reported in Athol at 4.5%, Gardner at 5.7%, Fitchburg at 6.7%, Templeton at 6.9%, Leominster at 7.2% and Phillipston at 9.2%.

When focusing on just two categories of educational attainment, a high school diploma or less versus an associate's degree or more, the State overall had a 54/46 ratio, with roughly 54% of its residents having a high school diploma or less and 46% having an associate's degree or more. Within the MPHN service area, 9 of the 11 communities had ratios higher than this, indicating a less educated population, with more residents age 25 and over reporting having either a high school diploma or less and fewer residents reporting having earned an associate's degree or a higher level of education. The highest proportion of residents with just a high school diploma or less was reported in Athol, with a 75/25 ratio of residents with a high school diploma or less to residents with an associate's degree or more, followed by Fitchburg and Gardner, both with ratios of 70/30.

The only communities in the MPHN service area with a lower proportion of residents age 25 and older with just a high school education or less to those with an associate's degree or more than the Commonwealth as a whole were Princeton at 31/69 and Sterling at 38/62. These communities

have a more educated population than the other communities in the MPH service as well as the State.

Percent of Educational Attainment for All Persons 25 Years and Over 2010



Source: U.S. Census Bureau website (www.census.gov): American Community Survey 2006 – 2010, Summary File 3, Table S1501

Educational Districts

An analysis of the educational systems within the region is complicated by the fact that many of the towns in the MPH service area belong to regional school systems. Four of the cities/towns in the MPH service area do have their own local school systems, while the remaining 7 towns are involved in 4 different regional school districts. All school districts here will be referred to by the names used on the Department of Education website.

Because of the intricacies of charter schools, public school choice and private school options, this analysis will focus on the students enrolled in the default local or regional schools associated with their cities and towns. There will also be some discussion of the major regional vocational technical school with high enrollment from MPH service cities and towns.

The three cities of Fitchburg, Gardner and Leominster all have local school systems as does the town of Clinton. The 4 regional school districts covering the 7 additional towns are complete PK – 12 systems. Students from towns in the MPH service area comprise 100% of the student body in 2 of these 4 regional school districts. The Athol-Royalston Regional School District is comprised of students from two of the Western Towns of Athol and Royalston. The Narragansett Regional

School District is comprised of students from the other two Western Towns of Phillipston and Templeton.

The other 2 regional school districts are comprised of students from both within the MPHN region and students from outside of this service area. 54.6% of the students in the Ashburnham-Westminster Regional School District are from the town of Westminster, which is part of the MPHN region, while 24.5% of the students in the Wachusett Regional School District reside in the towns of Princeton and Sterling, which are part of the MPHN region.

Local versus Regional School Districts in MPHN Service Area

Cities/Towns with Local School Districts	
City/Town	District
Clinton	Local
Fitchburg	Local
Gardner	Local
Leominster	Local
Towns with Regional School Districts	
Town	Regional District
Athol	Athol-Royalston
Phillipston	Narragansett
Princeton	Wachusett
Royalston	Athol-Royalston
Sterling	Wachusett
Templeton	Narragansett
Westminster	Ashburnham-Westminster

Source: Massachusetts Department of Elementary and Secondary Education website (<http://www.doe.mass.edu>)

There is one major regional vocational technical school, Montachusett Regional Vocational Technical School, which enrolls students from many of the cities/towns in the MPHN region. 69.4% of the students at Montachusett Regional Vocational Technical School are from Athol, Fitchburg, Gardner, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster, all part of the MPHN region.

The nine school districts covered in this report and the cities and towns associated with them are listed in the table below.

School Districts in MPHN Service Area

School District	Type	MPHN Cities/Towns Served
Ashburnham-Westminster	Regional PK – 12	Westminster
Athol-Royalston	Regional PK – 12	Athol & Royalston
Clinton	Local PK – 12	Clinton
Fitchburg	Local PK – 12	Fitchburg
Gardner	Local PK – 12	Gardner
Leominster	Local PK – 12	Leominster
Montachusett Regional Vocational Technical	Regional Vocational Technical 9 - 12	Athol, Fitchburg, Gardner, Phillipston, Princeton, Royalston, Sterling, Templeton & Westminster
Narragansett	Regional PK – 12	Phillipston & Templeton
Wachusett	Regional PK – 12	Princeton & Sterling

Source: Massachusetts Department of Elementary and Secondary Education website (<http://www.doe.mass.edu>)

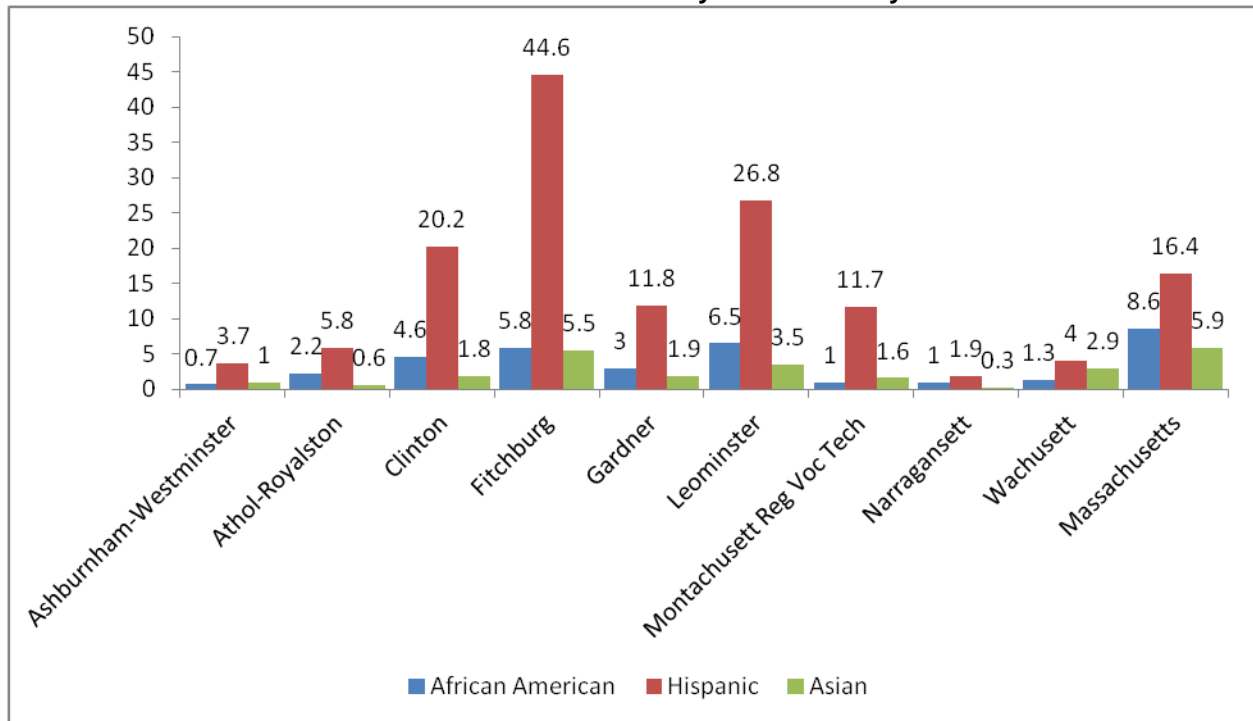
School District Enrollment by Racial/Ethnic Group

A review of school enrollment by race/ethnicity using data and terminology from the Massachusetts Department of Elementary and Secondary Education shows that within Massachusetts, African Americans or Blacks made up 8.6% of the students enrolled in public schools for the 2012 – 2013 school year. Within the MPHN school districts, Leominster reported the highest percentage of African American or Black students at 6.5% followed by Fitchburg at 5.8% and Clinton at 4.6%. All of the public school districts in the region reported lower percentages of African American or Black students than the Commonwealth as a whole. The lowest percentages of African American or Black students were reported in Ashburnham-Westminster Regional at 0.7%, and Montachusett Regional Vocational Technical School and Narragansett Regional, both at 1%.

The school enrollment percentages in 2012 – 2013 for African Americans or Blacks were higher than the percentages reported for the overall Black or African American population in 2010 for the State as a whole (8.6% of students vs. 6.6% of population), as well as for Leominster (6.5% of students vs. 5.1% of population), Fitchburg (5.8% of students vs. 5.1% of population), Clinton (4.6% of students vs. 3.5% of population) and Gardner (3.0% of students vs. 2.8% of population).

The percentage differences between the census figures for the overall population and the school enrollment figures for African Americans or Blacks are more difficult to determine for the regional school districts, but the African American or Black school enrollment rate did seem to be higher for the Athol-Royalston Regional School District at 2.2% than the African American or Black overall population figures for Athol at 1% and Royalston at 0.6%.

Percent of School District Enrollment by Race/Ethnicity 2012 – 2013



Source: Massachusetts Department of Elementary and Secondary Education website
(http://profiles.doe.mass.edu/state_report/enrollmentbyracegender.aspx)

Within the Commonwealth, Hispanics or Latinos made up 16.4% of the students enrolled in public schools for the 2012 – 2013 school year. Within the MPH region, several school districts reported percentages of Hispanic or Latino students that were higher than that of the State. Fitchburg reported the highest percentage of Hispanic or Latino students at 44.6% or 2.7 times the State percentage. Fitchburg was followed by Leominster at 26.8% (1.6 times the State percentage) and Clinton at 20.2% (1.2 times the State percentage) of Hispanic or Latino students.

A comparison of the school enrollment percentage for Hispanics or Latinos in 2012 - 2013 versus the percentage reported for the overall Hispanic or Latino population in 2010 for the Commonwealth as a whole indicates that the school percentage was 1.7 times the overall population percentage (16.4% of students vs. 9.6% of population). Higher percentages of Hispanic or Latino students vs. the overall Hispanic or Latino population were also found in Fitchburg (44.6% of students vs. 21.6% of population), Leominster (26.8% of students vs. 14.5% of population), Clinton (20.2% of students vs. 13.6% of population), and Gardner (11.8% of students vs. 7.1% of population).

The percentage differences between the census figures for the overall population and the school enrollment figures for Hispanics or Latinos is more difficult to determine for the regional school districts, but the Hispanic or Latino school enrollment rates did seem to be higher than the census figures for the Athol-Royalston, Wachusett and Ashburnham-Westminster Regional School Districts.

Asians comprised 5.9% of the public school population within the State in 2012 - 2013. All of the school districts in the MPH region reported lower percentages of Asian students than the State as a whole. The State percentage of Asian students at 5.9% is higher than State percentage of Asian residents in 2010 of 5.3%. The same is true of Fitchburg, with 5.5% Asian students and 3.6% Asian residents, Leominster with 3.5% Asian students and 2.8 Asian residents, Gardner with 1.9% Asian students and 1.4% Asian residents and Clinton with 1.8% Asian students and 1.3% Asian residents.

The percentage differences between the census figures for the overall population and the school enrollment figures for Asians is more difficult to determine for the regional school districts, but the Asian school enrollment rate did seem to be higher than the census figures for the Wachusett Regional School District.

As mentioned previously in this report, in the 2010 census, 2.6% of the population in the Commonwealth of Massachusetts identified themselves as “Two or more races”. Four of the entities in the MPH service area had over 2% of their residents define themselves as “Two or more races”, with Fitchburg at 3.7%, Leominster at 2.8%, Clinton at 2.3% and Gardner at 2.2%. Within the school enrollment racial/ethnic data for 2012 – 2013 there is a category of “Multi-racial, non-Hispanic”. It is not clear if these terms are comparable, but it is interesting to note that 2.7% of public school students in the Commonwealth were identified as “Multi-racial, non-Hispanic”. Fitchburg at 5.7%, Montachusett Regional Vocational Technical School at 5.2%, Gardner at 4.5%, Athol-Royalston Regional at 2.8% and Leominster at 2.8% all had higher percentages of students who were identified as “Multi-racial, non-Hispanic” than did the State as a whole.

It is unclear as to whether the differences between the school racial/ethnic group enrollment percentages in 2012 – 2013 and the overall population racial/ethnic group census percentages in

2010 delineated above are due to differences in the definitions of the racial/ethnic groups; different time periods; the age distribution of racial/ethnic groups resulting in more/fewer school-age children; or differences in school enrollment trends leading to disproportionately more/fewer racial/ethnic group students in certain public school systems.

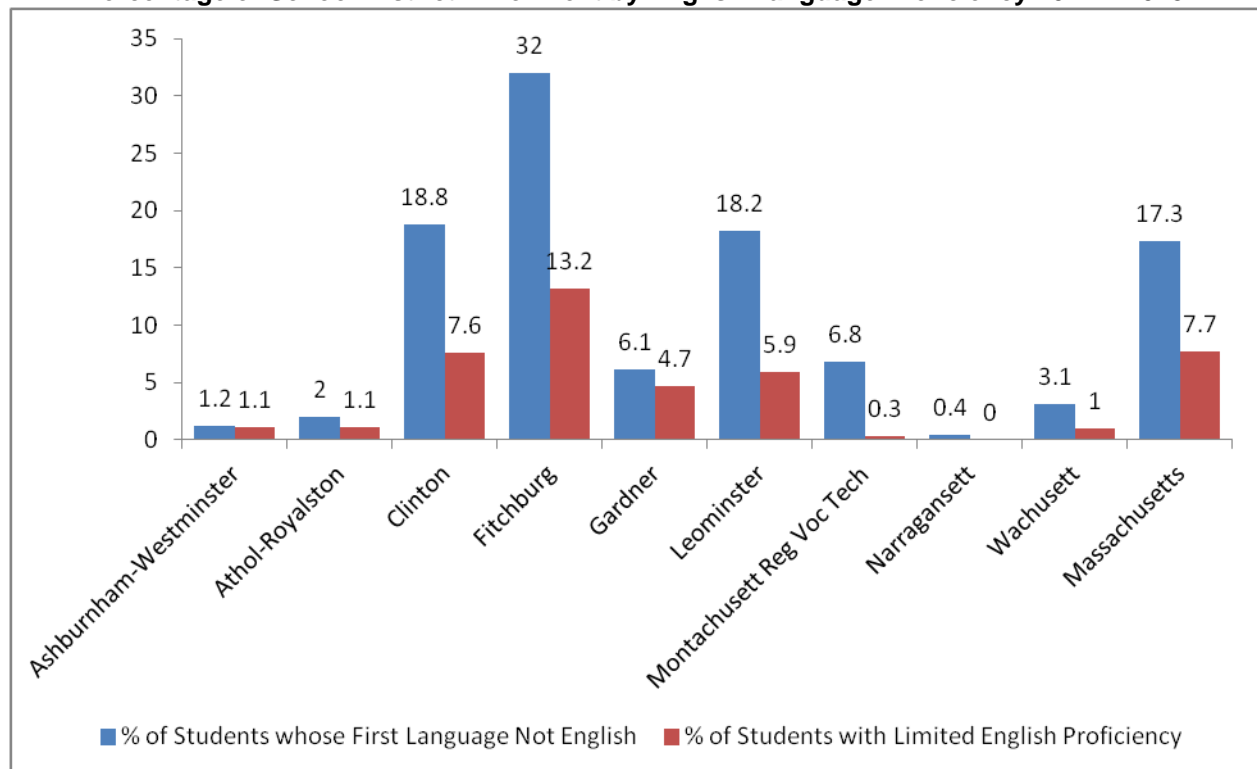
It is also interesting to compare the racial/ethnic characteristics of students with those of their teachers. Please see the subsequent section entitled **Teacher Race/Ethnicity by School District** for a comparison.

School District Enrollment by English Language Proficiency

There are three school districts within the MPH service area with a large percentage of students for whom English is not their first language. Within the State, 17.3% of the students enrolled during the 2012 – 2013 school year reported that English was not their first language. Fitchburg reported that English was not the first language for 32% of its students, while 18.8% of Clinton's students and 18.2% of Leominster's students reported that English was not their first language.

When reporting on the percentage of students with Limited English Proficiency (LEP) in 2012 - 2013, not surprisingly the same three school districts cited above reported the highest percentages in the region. Within the Commonwealth, 7.7% of students had LEP. Fitchburg reported that 13.2% of its students had Limited English Proficiency, while Clinton and Leominster reported that 7.6% and 5.9% of their students, respectively, had LEP. Please note that the term "English Language Learner (ELL)" has recently replaced the term "Limited English Proficiency (LEP)" within the Massachusetts Department of Elementary and Secondary Education.

Percentage of School District Enrollment by English Language Proficiency 2012 – 2013

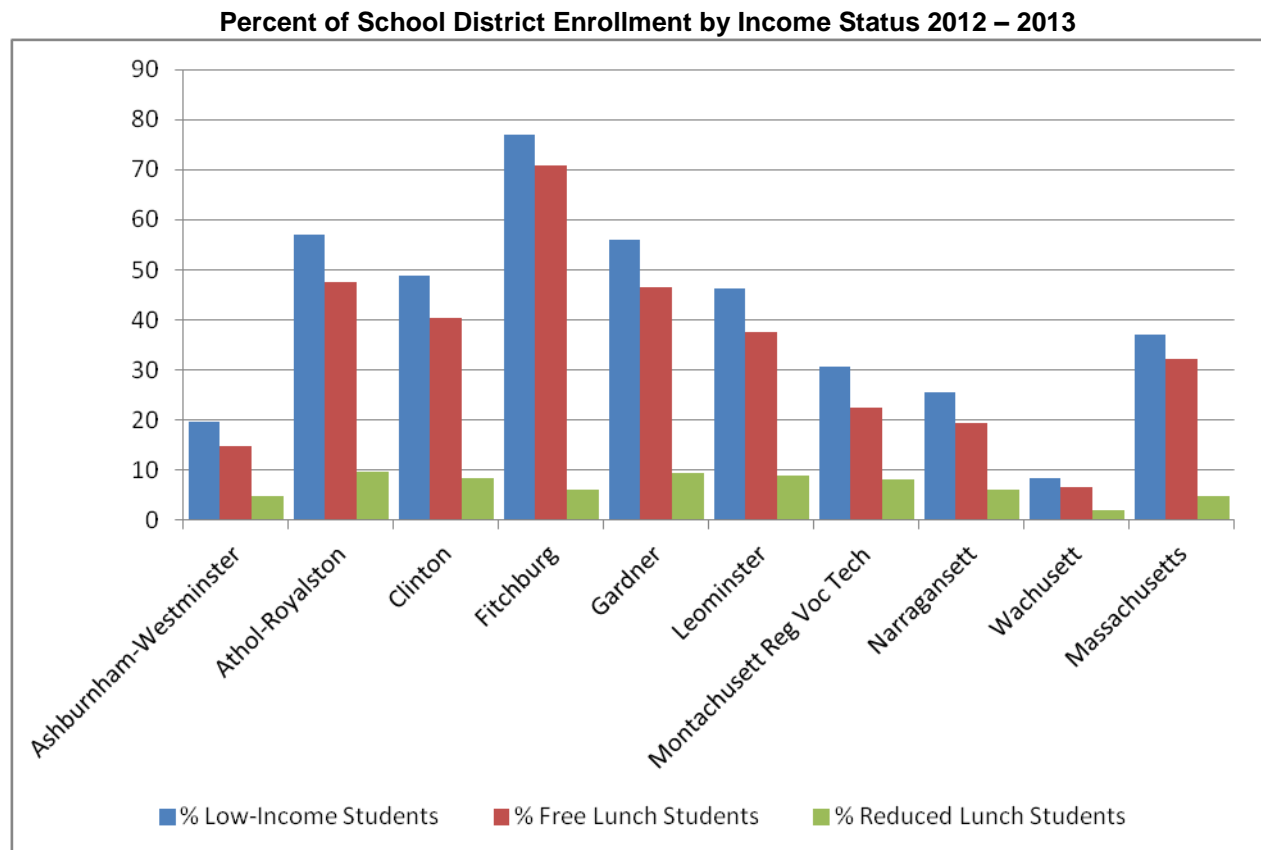


Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/selectedpopulations.aspx)

School District Enrollment by Income Status

Five of the school districts within the MPH service area had much higher percentages of low income students in 2012 – 2013 than the State average of 37%. The highest percent of low income students was found in Fitchburg at 76.9%, more than twice that of the Commonwealth as a whole. Athol-Royalston Regional at 57%, Gardner at 55.9%, Clinton at 48.9% and Leominster at 46.3% also had rates of low income students which were higher than that of the State. The school districts with the fewest low income students were Wachusett Regional, with 8.4% of students described as low income, Ashburnham-Westminster Regional with 19.7% and Narragansett Regional with 25.5% low income students.

Another indicator of the income status of students in a school district is the percent of students who are eligible to receive a free lunch. In 2012 – 2013, 32.1% of the students within the Commonwealth were eligible to receive a free lunch. Again, the same five school districts reported higher percentages of students eligible to receive free lunches than the State. Fitchburg had the highest percent of students eligible to receive free lunches at 70.9%, followed by Athol-Royalston Regional at 47.5%, Gardner at 46.4%, Clinton at 40.5% and Leominster at 37.5%. The school districts with the fewest students eligible to receive free lunches were Wachusett Regional, with 6.5% of students eligible to receive free lunches, Ashburnham-Westminster Regional with 14.9% and Narragansett Regional with 19.5% of students eligible to receive free lunches.



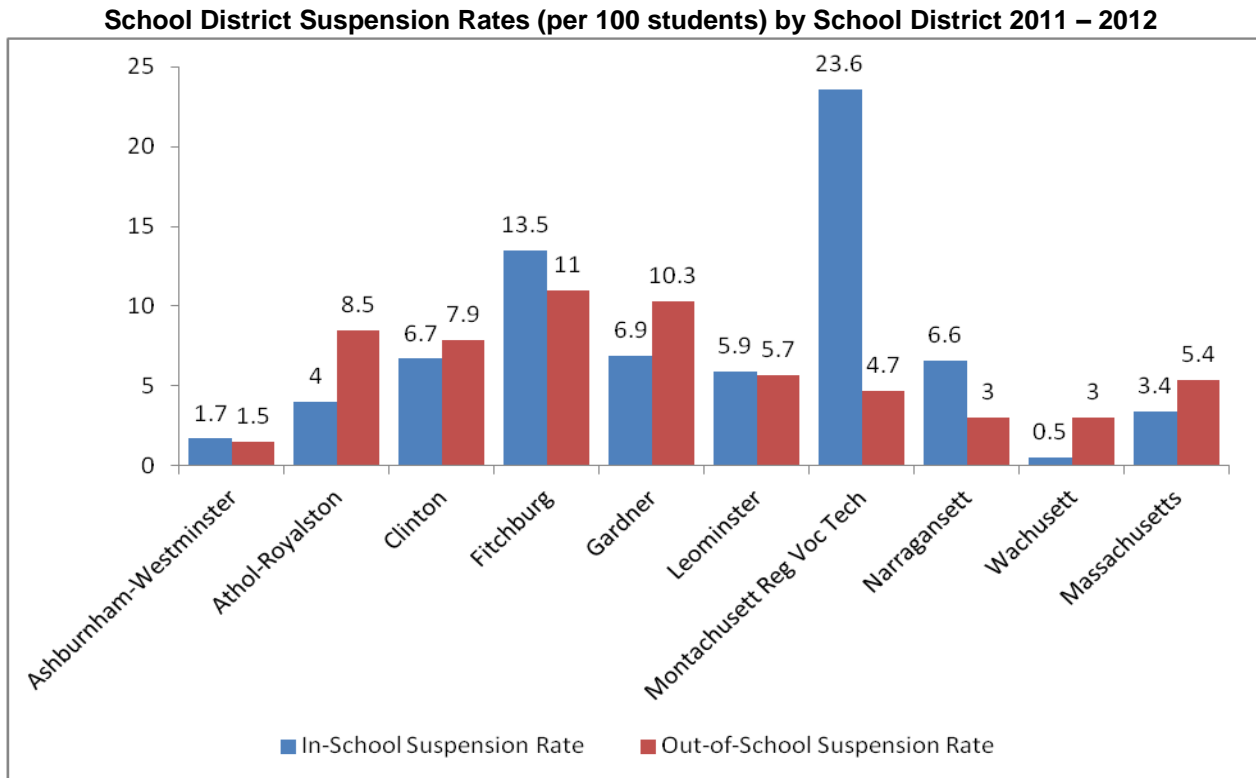
Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/selectedpopulations.aspx)

Suspensions by School District

During the 2011 – 2012 school year, there were more out-of-school suspensions than in-school suspensions within the State, with overall rates of 5.4 out-of-school suspensions per 100 students and 3.4 in-school suspensions per 100 students. Five of the school districts in the MPH service area had higher out-of-school suspension rates than in-school ones. The highest out-of-school suspension rates were reported in Fitchburg at 11, Gardner at 10.3, Athol-Royalston Regional at 8.5 and Clinton at 7.9 per 100 students.

The highest in-school suspension rates in 2011 – 2012 were reported by the Montachusett Regional Vocational Technical School at 23.6, followed by Fitchburg with 13.5 and Gardner with 6.9 in-school suspensions per 100 students. Overall, there were 3.4 in-school suspensions per 100 students in the public school districts in the Commonwealth in 2011 – 2012.

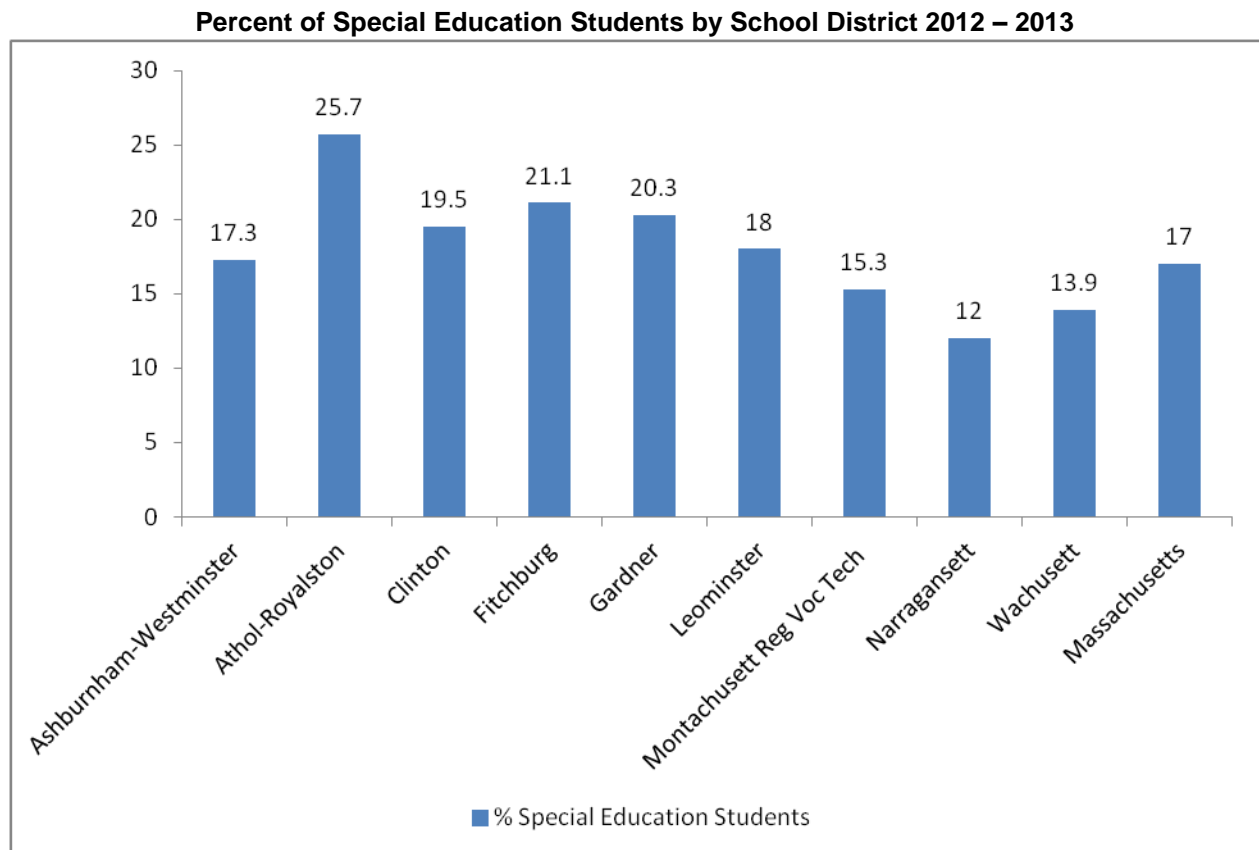
When out-of-school and in-school suspensions are combined, the State had an overall suspension rate of 8.8 per 100 students in 2011 - 2012. All of the school districts in the MPH region, except Ashburnham-Westminster Regional and Wachusett Regional, had combined suspension rates greater than that of the Commonwealth. These two districts had combined suspension rates of 3.2 and 3.5 per 100 students, respectively. The highest total suspension rate in the region was reported at the Montachusett Regional Vocational Technical School, with a rate of 28.3. Fitchburg reported 24.5 suspensions per 100, while Gardner had 17.2 and Clinton had 14.6 total suspensions per 100 students.



Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/indicators.aspx)

School District Enrollment by Percent of Special Education Students

Of the 9 school districts in the MPH N service area, 6 reported special education student enrollment percentages higher than the State average of 17% during the 2012 – 2013 school year. The highest percentages of special education students were reported at the Athol-Royalston Regional School District at 25.7%, followed by Fitchburg at 21.1% and Gardner at 20.3%. The lowest percentages of special education students were reported in the Narragansett Regional School District at 12% and the Wachusett Regional School district at 13.9%. Please note that the term “Students with Disabilities” has recently replaced the term “Special Needs Students” within the Massachusetts Department of Elementary and Secondary Education.



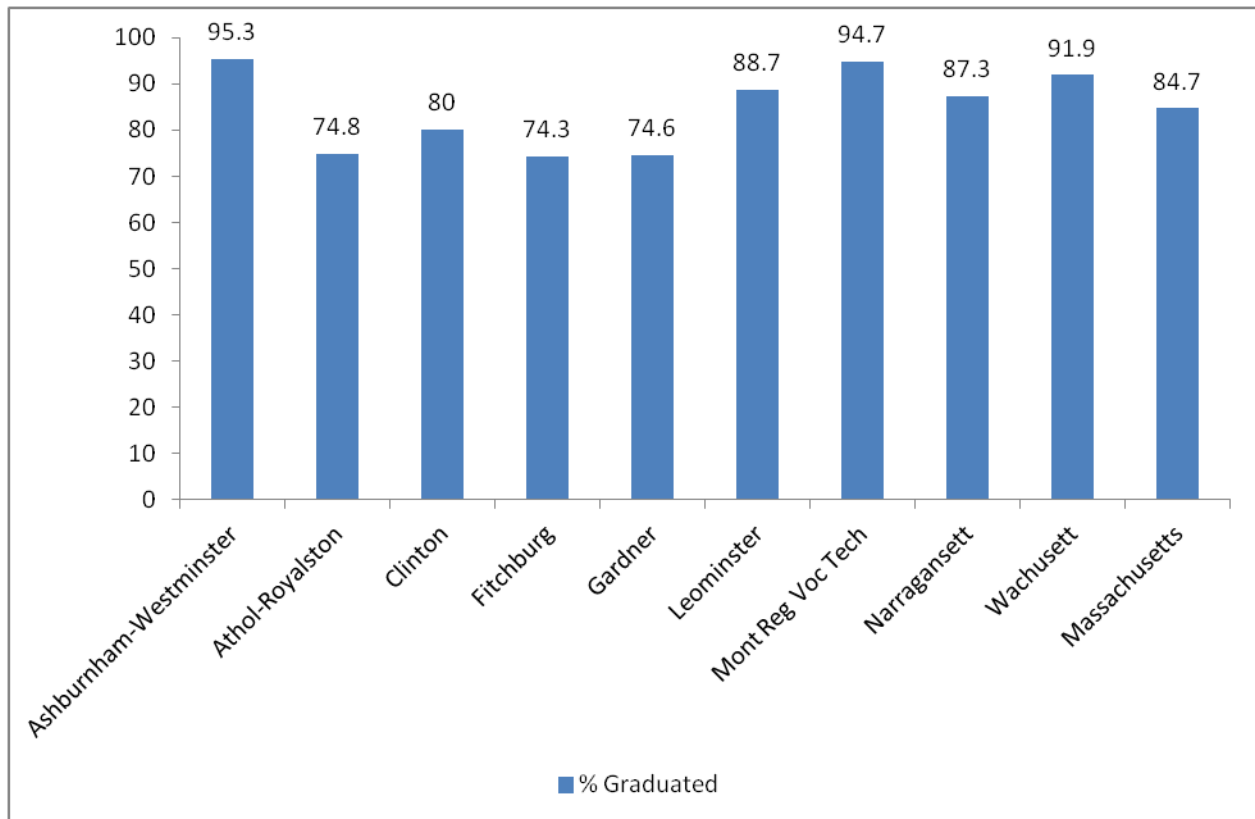
Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/selectedpopulations.aspx)

Graduation and Dropout Rates by School District

Within the Commonwealth the four year graduation rate for 2012 was 84.7%, indicating that 84.7% of the students who entered high school (defined as entering 9th grade for the first time) in 2008 – 2009 graduated on schedule four years later in 2012. The formula used here also considers transfers out and in during the four year period.

Five of the 9 school districts within the MPH service area had graduation rates higher than that of the Commonwealth, with 3 of them reporting four year graduation rates of over 90%. The highest graduation rates in the region were seen in Ashburnham-Westminster Regional at 95.3%, Montachusett Regional Vocational Technical at 94.7% and Wachusett Regional at 91.9%. On the opposite end of the spectrum, 4 MPH school districts reported graduation rates lower than the State. The lowest graduation rates were reported in Fitchburg at 74.3%, Gardner at 74.6%, Athol-Royalston Regional at 74.8% and Clinton at 80%.

Four Year Graduation Rates (% Graduated) by School District 2012

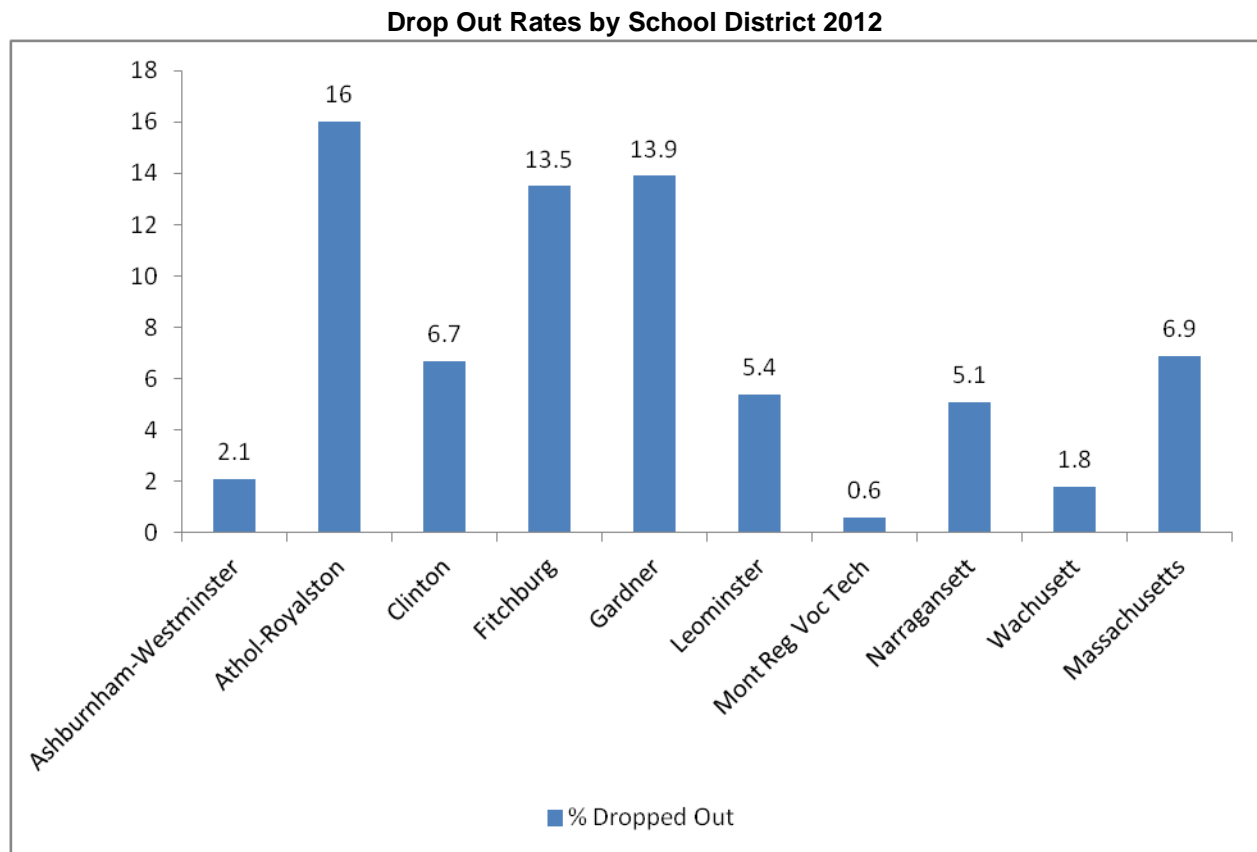


Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/gradrates.aspx)

Within the Commonwealth, the dropout rate for 2012 was 6.9%, indicating that 6.9% of the students who entered high school (defined as entering 9th grade for the first time) in 2008 – 2009 dropped out before their scheduled graduation four years later in 2012. This number does not include GED students, students still enrolled and working toward graduation or students expelled from schools, all of which are reported separately. The formula used here also considers transfers out and in during the four year period.

Six of the 9 school districts within the MPH service area reported dropout rates lower than the State. The lowest drops out rates were reported at Montachusett Regional Vocational Technical at 0.6%, Wachusett Regional at 1.8% and Ashburnham-Westminster Regional at 2.1%, all less than one-third of the overall rate in the Commonwealth.

On the opposite end of the spectrum, 3 of the MPHN school districts reported dropout rates higher than the State. The highest dropout rate was seen in Athol-Royalston Regional at 16%, followed by Gardner at 13.9% and Fitchburg at 13.5%. The dropout rates in Athol-Royalston Regional and Gardner were more than twice that of the State overall.



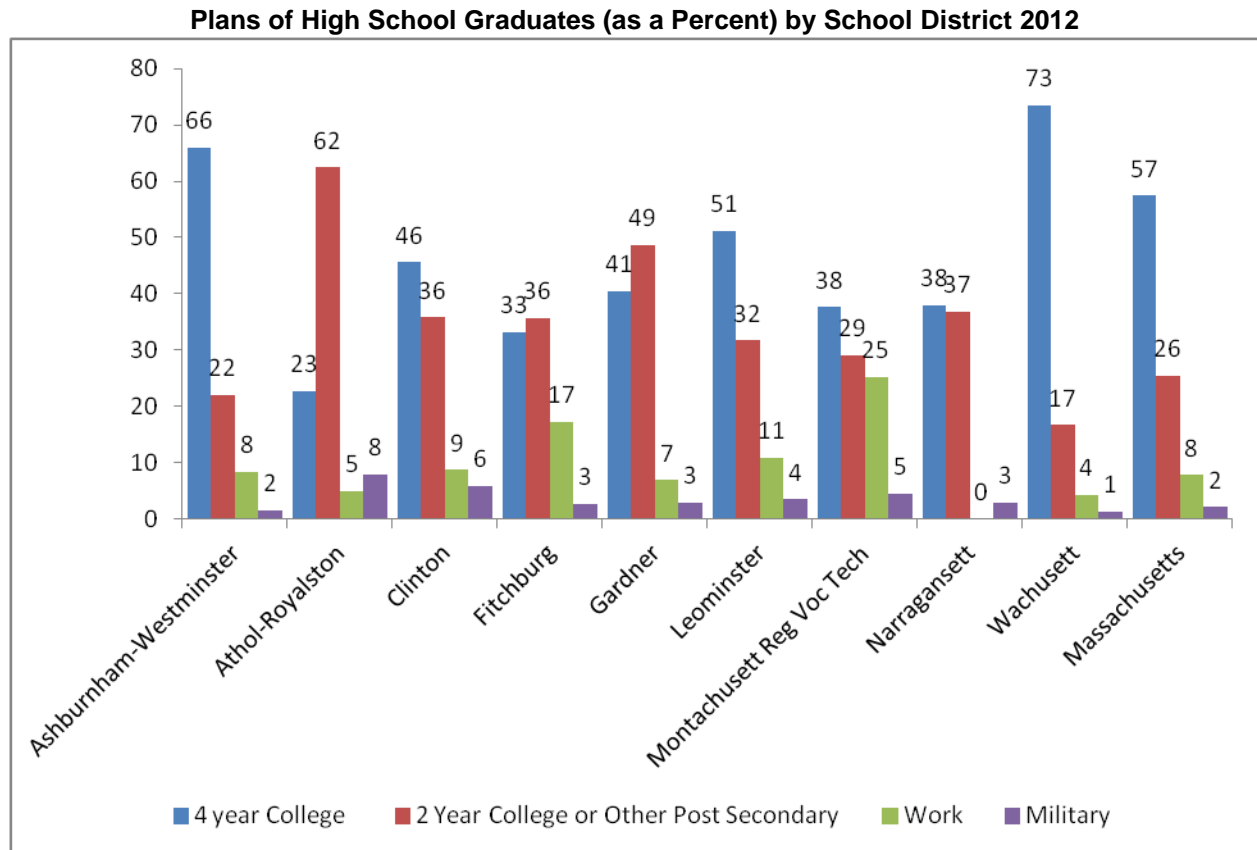
Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/gradrates.aspx)

Plans of High School Graduates by School District

Among the 2012 high school graduates within the Commonwealth, 57% planned to attend a four year private or public college, 26% planned to attend a two year private or public college or undertake other post-secondary education, 8% planned to go to work and 2% planned to join the military. Within the school districts in the MPHN service area, the plans of high school graduates in 2012 varied widely. The school districts with the highest percentage of students planning to attend four year private or public colleges were Wachusett Regional at 73% and Ashburnham-Westminster Regional at 66%. These school districts were the only ones in the region to exceed the Commonwealth on this measure. The MPHN school districts with the lowest percentage of graduates planning to attend a 4 year private or public college in 2012 were Athol-Royalston Regional at 23% and Fitchburg at 33%.

The school districts with the highest percentage of students planning to attend two year private or public colleges or planning to undertake other post-secondary education in 2012 were Athol-Royalston Regional at 62%, Gardner at 49% and Narragansett Regional at 37%, all having

percentages higher than the State overall. The MPH school districts with the lowest percentage of students planning to attend two year private or public colleges or planning to undertake other post-secondary education were Wachusett Regional at 17% and Ashburnham-Westminster Regional at 22%. This is not surprising given the high percentage of students from these districts planning to attend a 4 year college.



Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/plansofhsgrads.aspx)

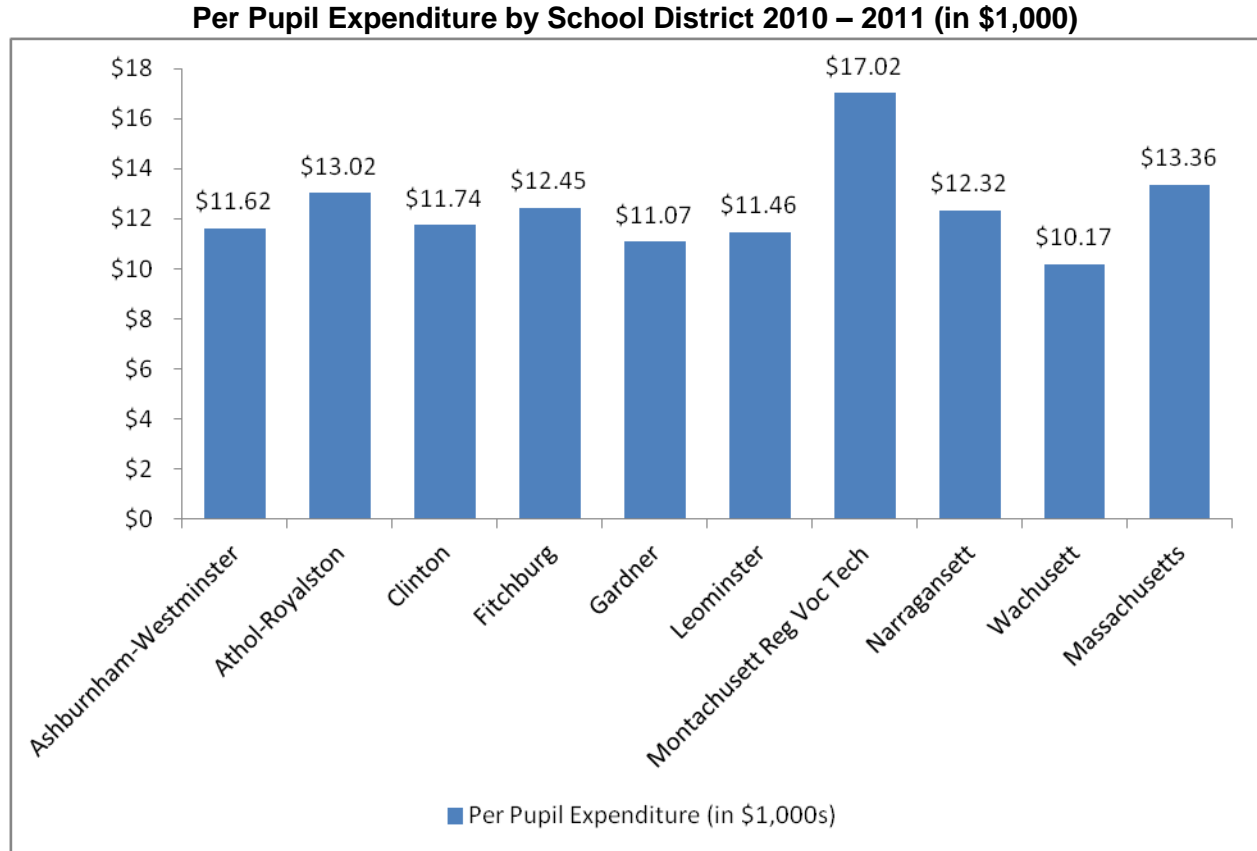
When all of the students planning to attend 4 year colleges, 2 year colleges or other post-secondary education are combined into a single group of those planning to continue their education, 83% of the graduates in the Commonwealth fall into this category. The MPH school districts with the highest percentage of graduates who plan to continue their education were Wachusett Regional and Gardner at 90% and Ashburnham-Westminster Regional at 88%. The districts with the lowest percentage of graduates who plan to continue their education were Montachusett Regional Vocational Technical at 67% and Fitchburg at 69%.

The highest percentage of students planning to enter the military was reported by Athol-Royalston Regional at 8% and Clinton at 6%. The lowest percentage of graduates planning to enter the military was reported by Wachusett Regional at 1% and Ashburnham-Westminster Regional at 2%.

Not surprisingly, Montachusett Regional Vocational Technical was the school district with the highest percentage of graduates reporting plans to enter the workforce at 25%. Fitchburg at 17% also had a high percentage of graduates planning to enter the workforce.

Per Pupil Expenditure by School District

Within Massachusetts, the average per pupil expenditure for 2010 – 2011 was \$13,361. Within the school districts in the MPH N service area, only one had per pupil expenditures higher than the State. Montachusett Regional Vocational Technical School at \$17,018 had a per pupil expenditure 27% higher than the Commonwealth and 67% higher than the Wachusett Regional, the school district with the lowest per pupil expenditure amount of \$10,170. Other than Montachusett Regional Vocational Technical School, all of the other school districts in the MPH N region reported per pupil expenditures less than the State.

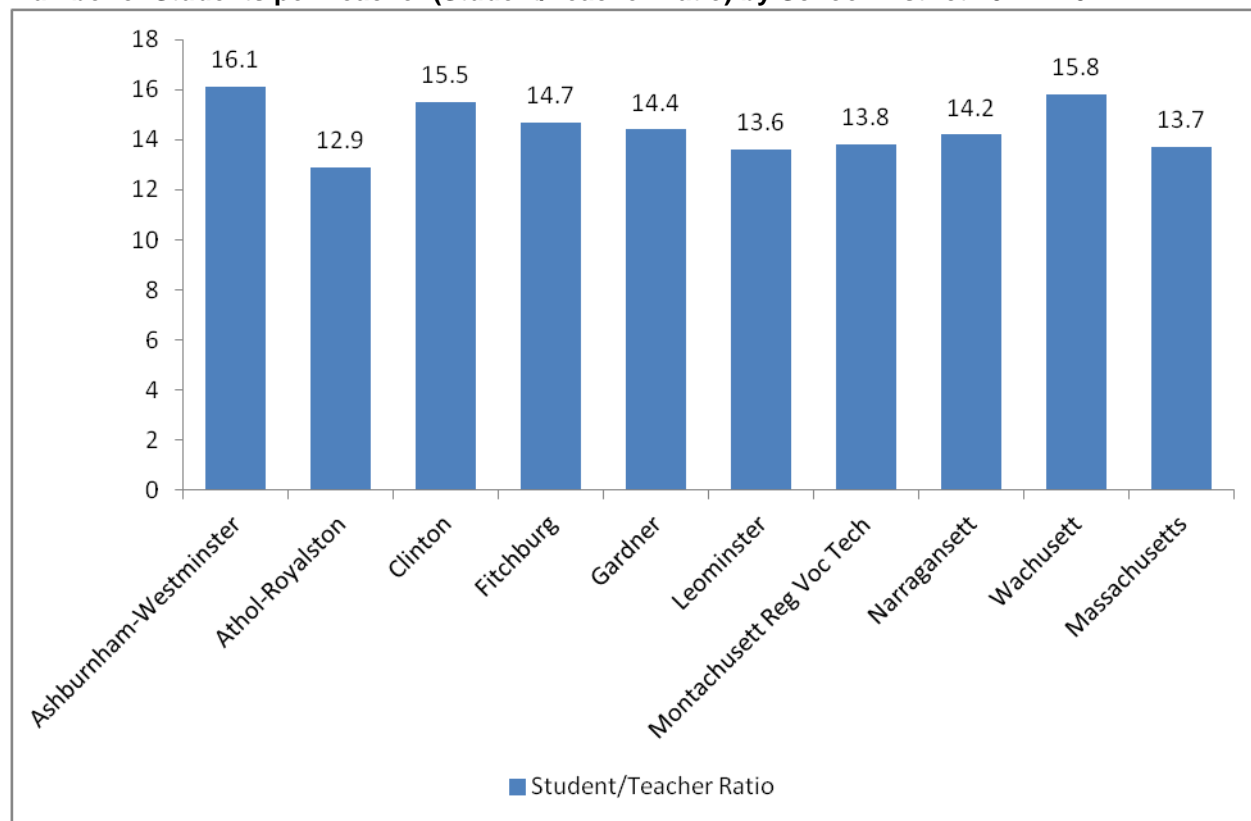


Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/ppx.aspx)

Student/Teacher Ratio by School District

During the 2011 – 2012 school year, there was an average of 13.7 students for every one teacher within the school districts in the Commonwealth. A lower student/teacher ratio may be indicative of smaller class sizes and more individualized attention for the students. For MPH N school districts, this student/teacher ratio ranged from a low of 12.9 to 1 in Athol-Royalston Regional to a high of 16.1 students for every one teacher in Ashburnham-Westminster Regional. In addition to Ashburnham-Westminster Regional, high student/teacher ratios were also found in Wachusett Regional, with 15.8 students per teacher, and in Clinton, with 15.5 students per teacher.

Number of Students per Teacher (Student/Teacher Ratio) by School District 2011 - 2012



Source: Massachusetts Department of Elementary and Secondary Education website (http://profiles.doe.mass.edu/state_report/teacherdata.aspx)

Teacher Race/Ethnicity by School District

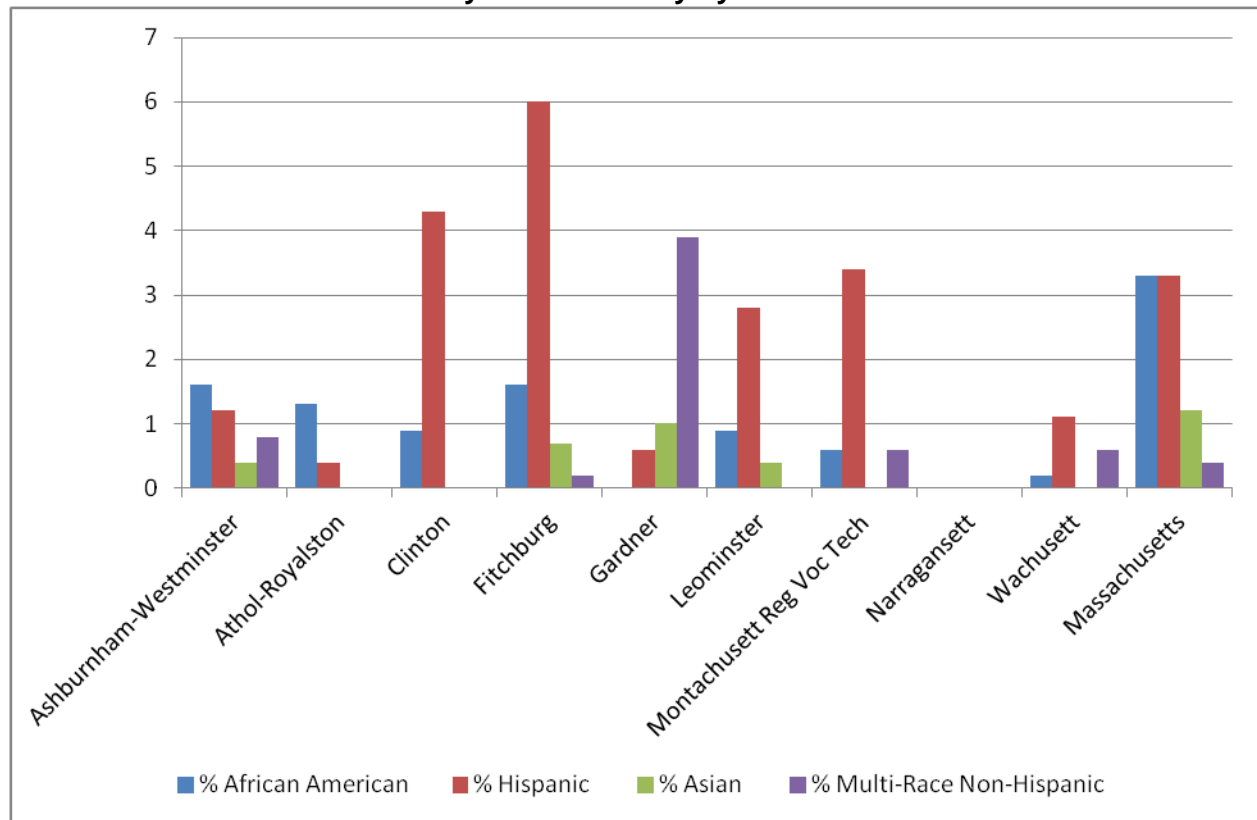
Within the Commonwealth, 91.6% of teachers during the 2011 – 2012 school year described themselves as White. The only school district in the MPH N service area with a comparable percentage of White teachers was Fitchburg, also with 91.6% of its teachers described as White. Every other school district within the MPH N region reported higher percentages of White teachers than the State. Narragansett Regional reported that 100% of its teachers were White.

The percentage of teachers who described themselves as African American was 3.3% for the State overall. All of the MPH N school districts reported a lower percentage of African American teachers than the State. The highest percentages of African American teachers were reported in Fitchburg and Ashburnham-Westminster Regional at 1.6% each.

Within the Commonwealth, 3.3% of the teachers described themselves as Hispanic. Three MPH N school districts reported a higher percentage of Hispanic teachers than the Commonwealth, including Fitchburg with 6.0%, Clinton with 4.3%, and Montachusett Regional Vocational Technical with 3.4% of their teachers described as Hispanic.

The percentage of teachers who describe themselves as Asian was 1.2% for the State overall. All of the MPHJ school districts reported a lower percentage of Asian teachers than the State. The highest percentages of Asian teachers were reported in Gardner at 1% and Fitchburg at 0.7%.

Percent of Teachers by Race/Ethnicity by School District 2011 - 2012



Source: Massachusetts Department of Elementary and Secondary Education website
http://profiles.doe.mass.edu/state_report/teacherbyracegender.aspx

Within the Commonwealth, 0.4% of the teachers described themselves as being Multi-Race, non-Hispanic. Several of the school districts within the MPHJ region reported higher percentages of teachers in this racial/ethnic group, with Gardner at 3.9%, Ashburnham-Westminster Regional at 0.8%, and Montachusett Regional Vocational Technical and Wachusett Regional both with 0.6% of teachers identifying themselves as Multi-Race, non-Hispanic.

As mentioned previously in this report, it is interesting to compare the racial/ethnic characteristics of students with those of their teachers. In a previous section, entitled, ***School District Enrollment by Racial/Ethnic Group***, the demographic profile of students was provided. In comparing student information with that provided here relative to teachers, it is clear that the demographic profile of the school systems' teachers differs considerably from the demographics of the diverse student body in the State overall as well as in the school districts in the MPHJ region. The percentages of teachers in each of the racial/ethnic groups were far lower than the percentages of students in these racial/ethnic groups.

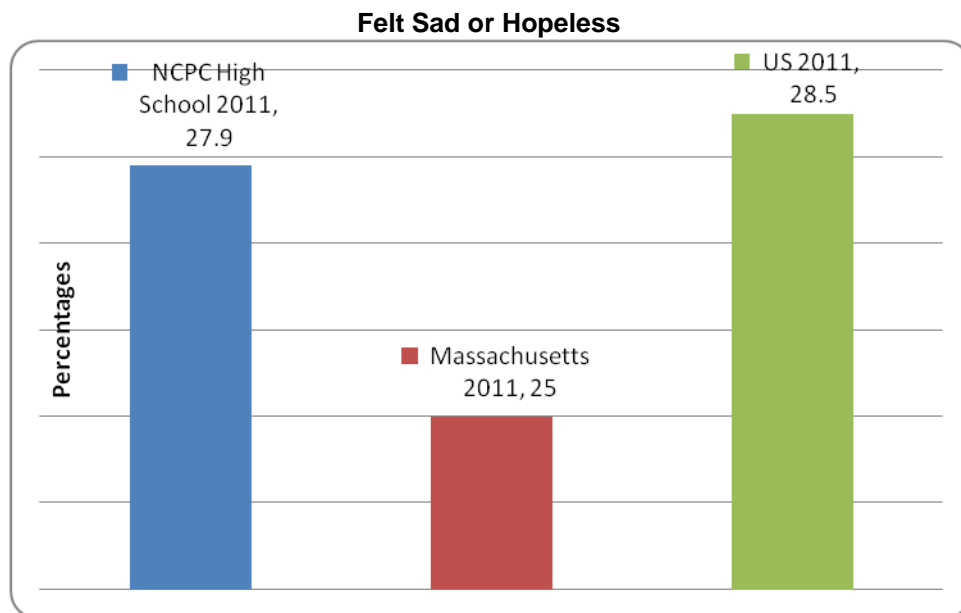
MENTAL HEALTH AND SUBSTANCE ABUSE

Child and Youth Mental Health

National prevalence studies consider the full range of mental health and substance abuse conditions. They have found that approximately 21% of children and youth from ages 9 to 17 would have experienced a mental health or substance abuse problem during the prior year, and that approximately 9% would have had a Serious Emotional Disturbance (i.e., a diagnosed mental health problem which has or is likely to affect them for a year or more and which causes the child difficulty in daily functioning in the home, school, and community). Additionally, the National Survey on Drug Use and Health found that 8% of youth ages 12 to 17 nationally reported experiencing at least one major depressive episode.

As described in the Methodology section of this Assessment, the *Youth Risk Behavior Survey* and *Youth and Community Survey* provides information from youth about their behaviors and, as such, reflects the current strengths and challenges of youth in our communities. With regards to mental health, the *Youth Risk Behavior Survey* includes items on depression.

The 2011 *Youth Risk Behavior Survey* conducted across Massachusetts and the United States and *Youth and Community Survey* conducted by LUK in North Central Massachusetts indicates that during the 12 months prior to the survey, more than one quarter of high school youth had experienced significant depressive symptoms. Specifically, 27.9% of area high school youth had felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing usual activities. As shown in the chart below, the percent of youth in the region experiencing these depressive symptoms is less than their peers in the United States (28.5%). However, the percent of youth in the region experiencing depressive symptoms is greater than in the State (25%).



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

Special Education for Emotional Disability

Many of the towns in the MPH N area belong to regional school systems. Four of the cities/towns in the MPH N service area have their own local school systems, while the remaining 7 towns are involved in 4 different regional school districts. In addition, Montachusett Regional Vocational Technical School, enrolls students from many of the cities/towns in the MPH N region. The nine school districts covered in this section of the report and the cities and towns associated with them are listed in the table below.

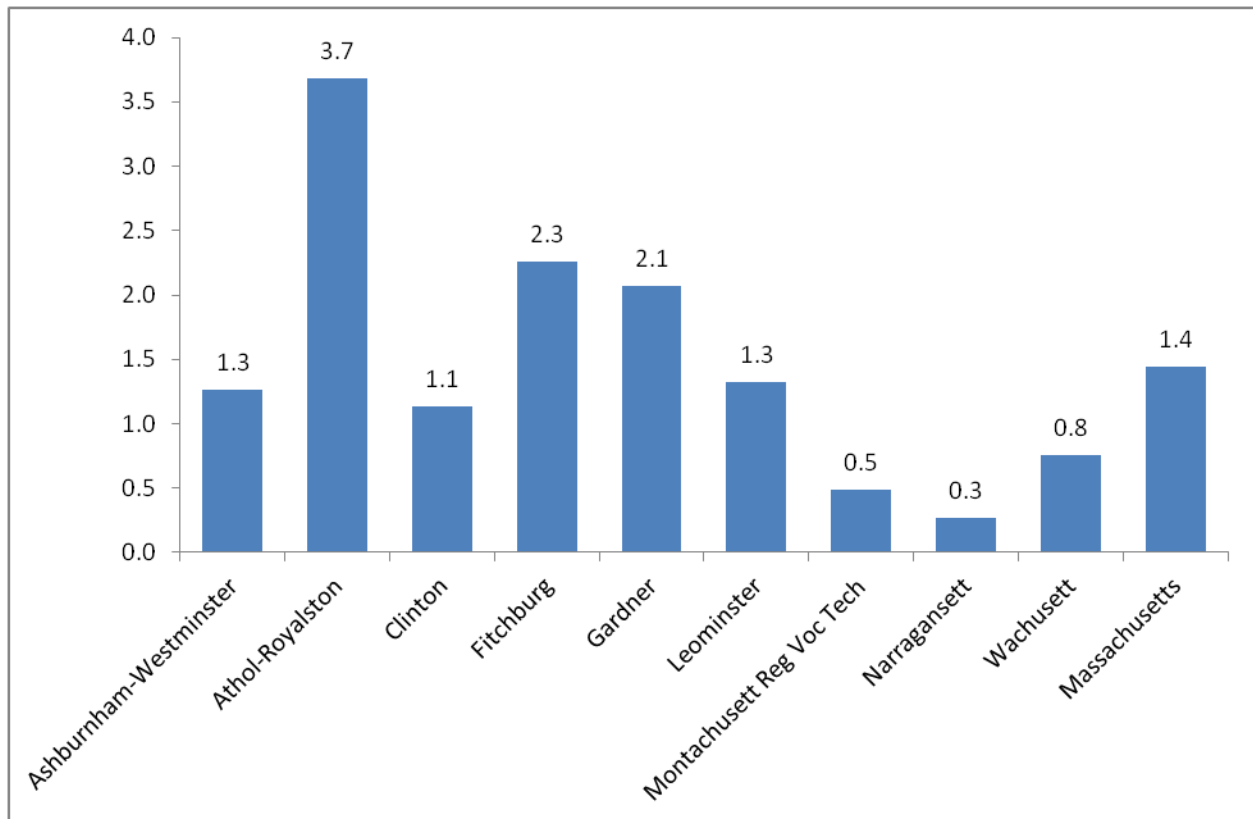
School Districts in MPH N Service Area

School District	Type	MPH N Cities/Towns Served
Ashburnham-Westminster	Regional PK – 12	Westminster
Athol-Royalston	Regional PK – 12	Athol & Royalston
Clinton	Local PK – 12	Clinton
Fitchburg	Local PK – 12	Fitchburg
Gardner	Local PK – 12	Gardner
Leominster	Local PK – 12	Leominster
Montachusett Regional Vocational Technical	Regional Vocational Technical 9 - 12	Athol, Fitchburg, Gardner, Phillipston, Princeton, Royalston, Sterling, Templeton & Westminster
Narragansett	Regional PK – 12	Phillipston & Templeton
Wachusett	Regional PK – 12	Princeton & Sterling

Source: Massachusetts Department of Elementary and Secondary Education website (<http://www.doe.mass.edu>)

In Massachusetts in 2011 – 2012, 1.4% of the students enrolled in the public school districts were enrolled in Special Education on the basis of an emotional disability. Within the school districts in the MPH N region, Athol-Royalston Regional reported the highest percent of students enrolled in special education due to emotional disabilities at 3.7%, 2.6 times that reported by the State. Fitchburg at 2.3% and Gardner at 2.1% also had percentages higher than that of the Commonwealth. The lowest percentages of students enrolled in special education due to emotional disabilities were reported in Narragansett Regional at 0.3%, Montachusett Regional Vocational Technical at 0.5% and Wachusett Regional at 0.8%.

**Students in Special Education for Emotional Disabilities 2011-2012
(Percent of Total Enrollment)**



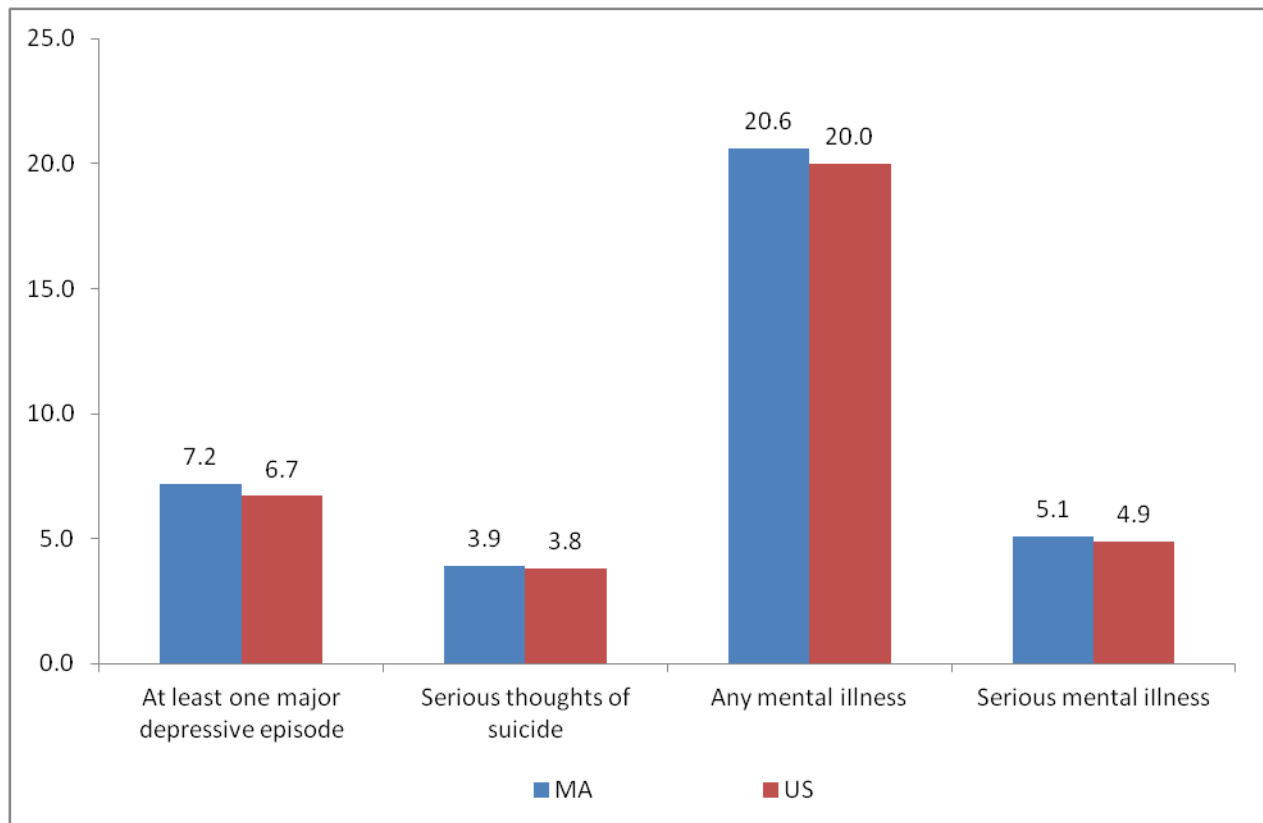
Source: Massachusetts Department of Elementary and Secondary Education website
<http://www.doe.mass.edu/infoservices/reports/enroll/default.html?yr=sped1112>

Adults: Mental Health

The Substance Abuse and Mental Health Services Administration (SAMHSA) was established in 1992 with the mission to reduce the impact of substance abuse and mental illness on America's communities. National Surveys on Drug Use and Health (NSDUHs) are used to collect data relative to substance abuse and mental health. The NSDUH is an ongoing survey of the civilian, non-institutionalized population of the United States. Data is available only at the national and state level.

According to SAMHSA NSDUH data, in the 2009 - 2010 timeframe, a higher percentage of adults age 18 and over in Massachusetts reported experiencing mental health issues in the categories in the chart below than did adults in the United States overall. A larger percentage of Massachusetts adults experienced at least one major depressive episode, had serious thoughts of suicide, had any mental illness and had serious mental illness than did adults in the nation overall.

Percentage of Adults (18 and older) Reporting Mental Health Issues in the Past Year (2009-2010)



Source: U.S. Substance Abuse and Mental Health Services Administration website
(<http://www.samhsa.gov/data/NSDUH/2k10State/NSDUHsae2010/Index.aspx>)

Healthy People 2020 Goal = 5.8% of adults 18 and over experience a major depressive episode in past year

Mental Disorder Mortality Rate

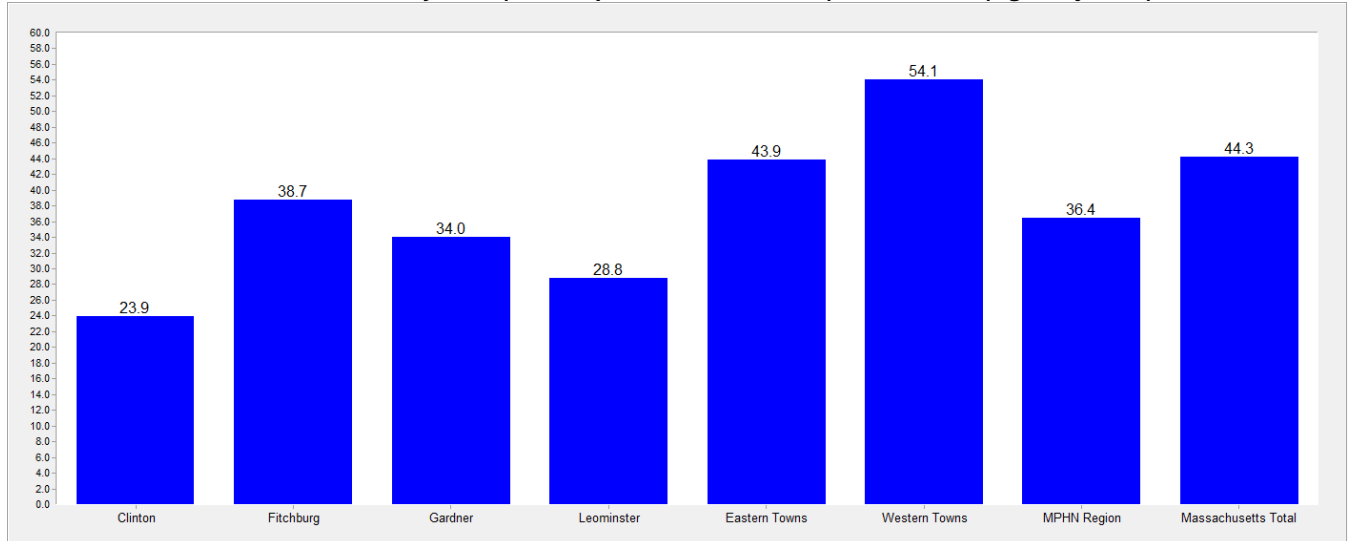
The Mental Disorder Mortality Rate is based on a wide range of mental and behavioral disorders, including dementia, delirium, brain damage, schizophrenia, mood (affective) disorders, neuroses, personality disorders, bipolar disorders, obsessive compulsive disorders and others.

In Massachusetts there were 11,081 deaths due to Mental Disorders in the 2008 – 2010 timeframe, for an age-adjusted Mental Disorder Mortality Rate of 44.3 per 100,000. Within the MPH region, there were 224 deaths due to Mental Disorders for an age-adjusted Mental Disorder Mortality Rate of 36.4 per 100,000, a rate lower than that of the Commonwealth overall.

The Western Towns at 54.1 was the only reporting region in the MPH service area to report a Mental Disorder Mortality Rate higher than the State during this time period. The lowest age-adjusted Mental Disorders Mortality Rate was reported in Clinton at 23.9, followed by Leominster at 28.8.

Within the Commonwealth, the age-adjusted Mental Disorder Mortality Rate varied among racial/ethnic groups during this time period, with a high of 45.3 for White, non-Hispanics, followed by rates of 45.1 for Black, non-Hispanics, 28.3 for Hispanics and 12.5 for Asians. Within the MPHNN, the numbers are too small to provide a meaningful break out of data by race/ethnicity or by city/town.

Mental Disorder Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)

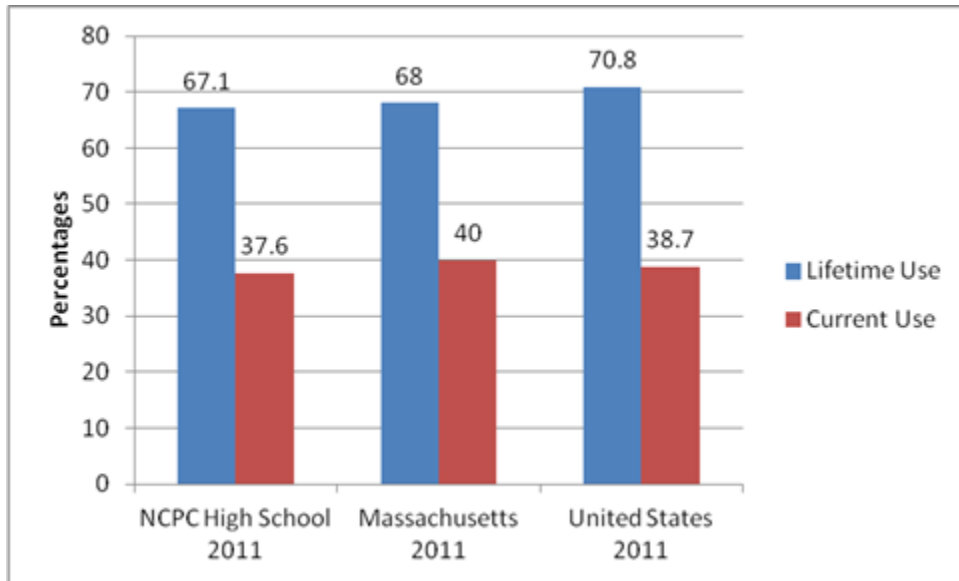


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Child and Youth Substance Abuse

According to the 2011 *Youth Risk Behavior Survey and the Youth and Community Survey* conducted and analyzed by LUK, high school youth in North Central Massachusetts engaged in the use of alcohol at rates lower than their peers in Massachusetts and the United States. As shown in the following figure, the percentage of area high school youth reporting current use of alcohol is lower than the percentage of youth in the state and across the nation (area youth = 37.6%, Massachusetts youth = 40%, and United States youth = 38.7%). Also presented in the figure, a majority of area youth indicated that at some time in their lifetime they had used alcohol, which is consistent with lifetime use among their peers in Massachusetts and the United States. However, the percentage of area youth reporting lifetime use (67.1%) is lower than both the state (68%) and nation (70.8%).

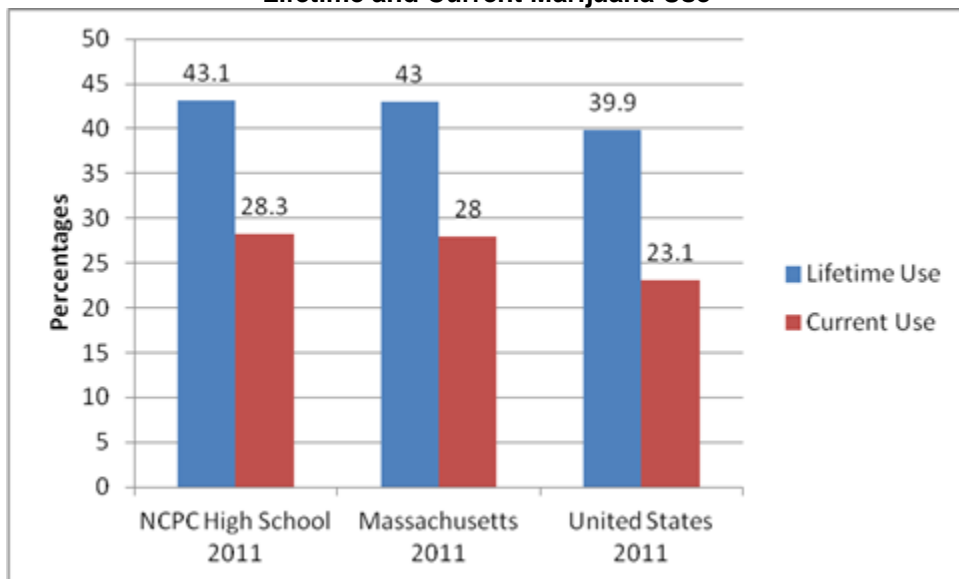
Lifetime and Current Alcohol Use



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

In contrast, a higher percentage of area high school youth indicated lifetime and current marijuana use than their peers in Massachusetts and the United States. Specifically, 43.1% of area youth reported lifetime use of marijuana versus 43% and 39.9% of youth in the state and nation, respectively. Over twenty-eight percent (28.3%) of area youth reported current use of marijuana versus 28% and 23.1% of youth in the state and nation, respectively.

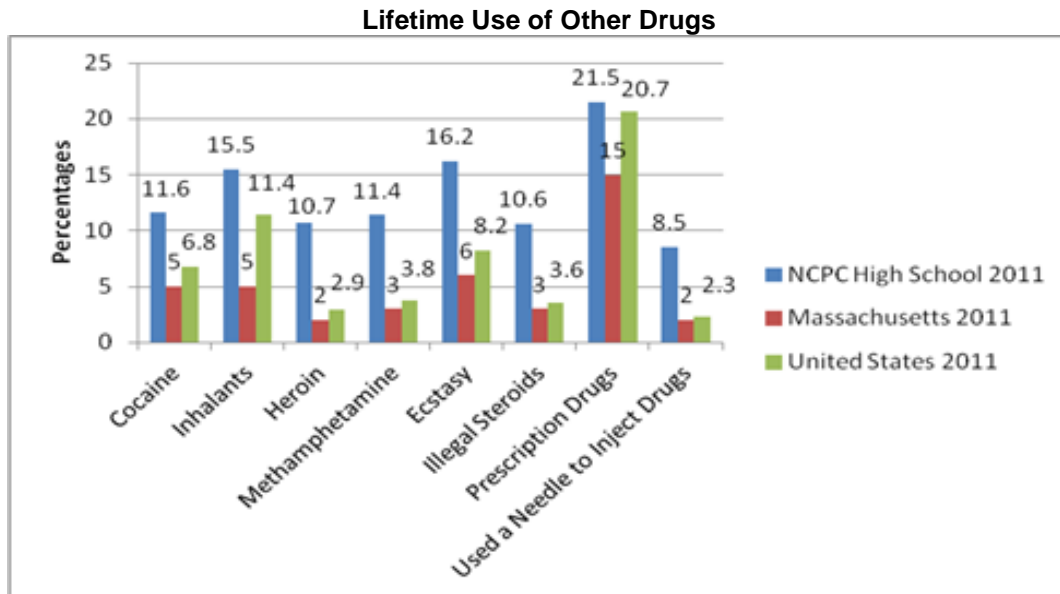
Lifetime and Current Marijuana Use



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

More than eleven percent (11.6%) of area youth reported ever having tried cocaine, 15.5% reported ever having tried inhalants, 10.7% reported ever having tried heroin, 11.4% reported ever

having tried methamphetamine, 16.2% reported ever having tried ecstasy, 10.6% reported ever having used steroids without a doctor's prescription, 21.5% reported misusing prescription drugs, and 8.5% reported ever having used a needle to inject an illegal drug. Each of these numbers is higher than the number of youth reporting lifetime use at the state and national levels. In many cases, area youth report use at rates two to three times that of their peers.



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

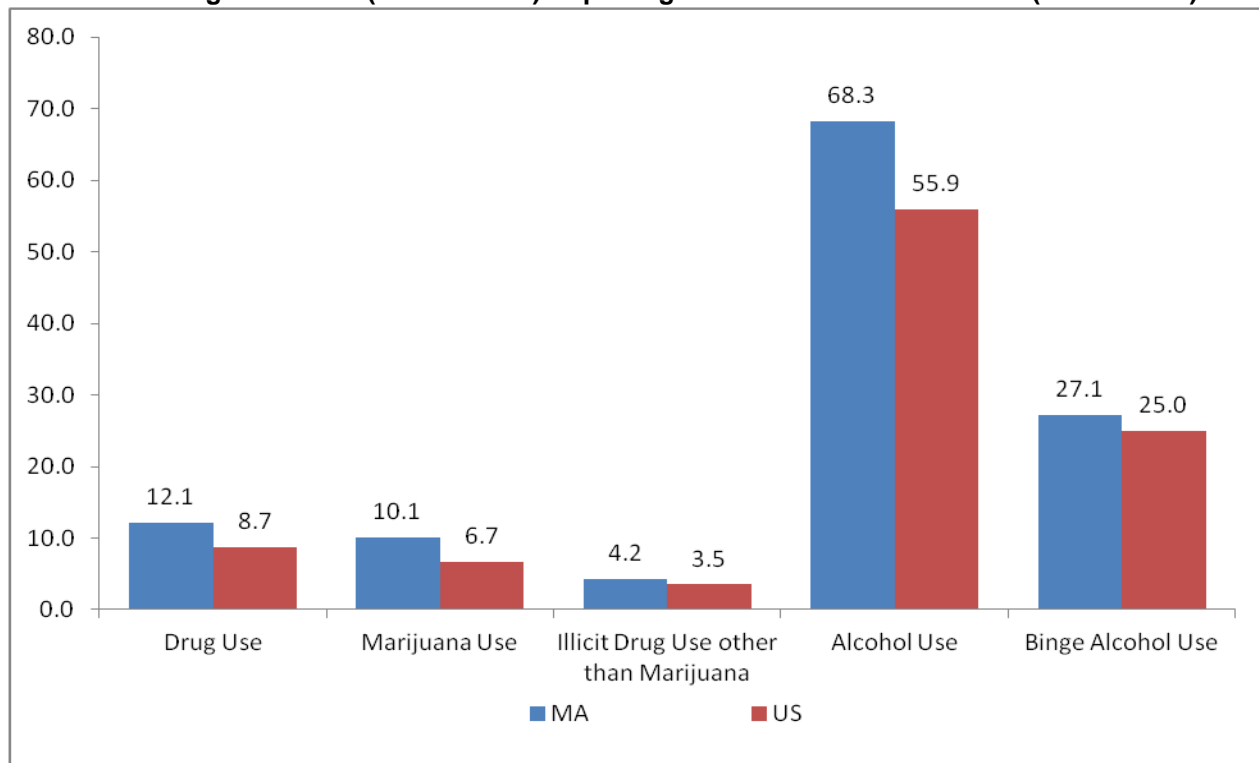
Adults – Substance Abuse

According to the Centers for Disease Control (CDC), substance abuse is a pattern of drug or alcohol use that results in harm to one's health, interpersonal relationships, or ability to work. Manifestations of substance abuse include failure to fulfill major responsibilities at work, school, or home; drinking in dangerous situations, such as drinking while driving or operating machinery; legal problems related to drugs or alcohol, such as being arrested for drug use or drinking while driving or for physically hurting someone while under the influence of drugs or alcohol; and continued drug or alcohol use despite ongoing relationship problems that are caused or worsened by the use of drugs or alcohol.

Long-term substance abuse can turn into substance dependence. Dependency on drugs or alcohol, also known as alcoholism or drug addiction, is a chronic disease. The signs and symptoms of substance dependence include a strong craving for drugs or alcohol; continued use despite repeated physical, psychological, or interpersonal problems and the inability to limit taking drugs or drinking alcohol.

The SAMHSA National Surveys on Drug Use and Health (NSDUHs) provides data on the State and National level relative to drug and alcohol use and abuse. According to NSDUH data from 2009 – 2010, a higher percentage of Massachusetts adult residents age 18 and over reported use of alcohol and drugs in the past month as compared with adults in the country as a whole. In Massachusetts 12.1% of adults reported drug use in the past month, higher than the 8.7% reported in the United States.

Percentage of Adults (18 and older) Reporting Past Month Substance Use (2009 – 2010)



Source: U.S. Substance Abuse and Mental Health Services Administration website
(<http://www.samhsa.gov/data/NSDUH/2k10State/NSDUHsae2010/index.aspx>)

Healthy People 2010 Goal = 3.2% illicit drug use in past month; 13.4% binge alcohol use in past month
Healthy People 2020 Goal = 7.1% illicit drug use in past month; 24.4% binge alcohol use in past month

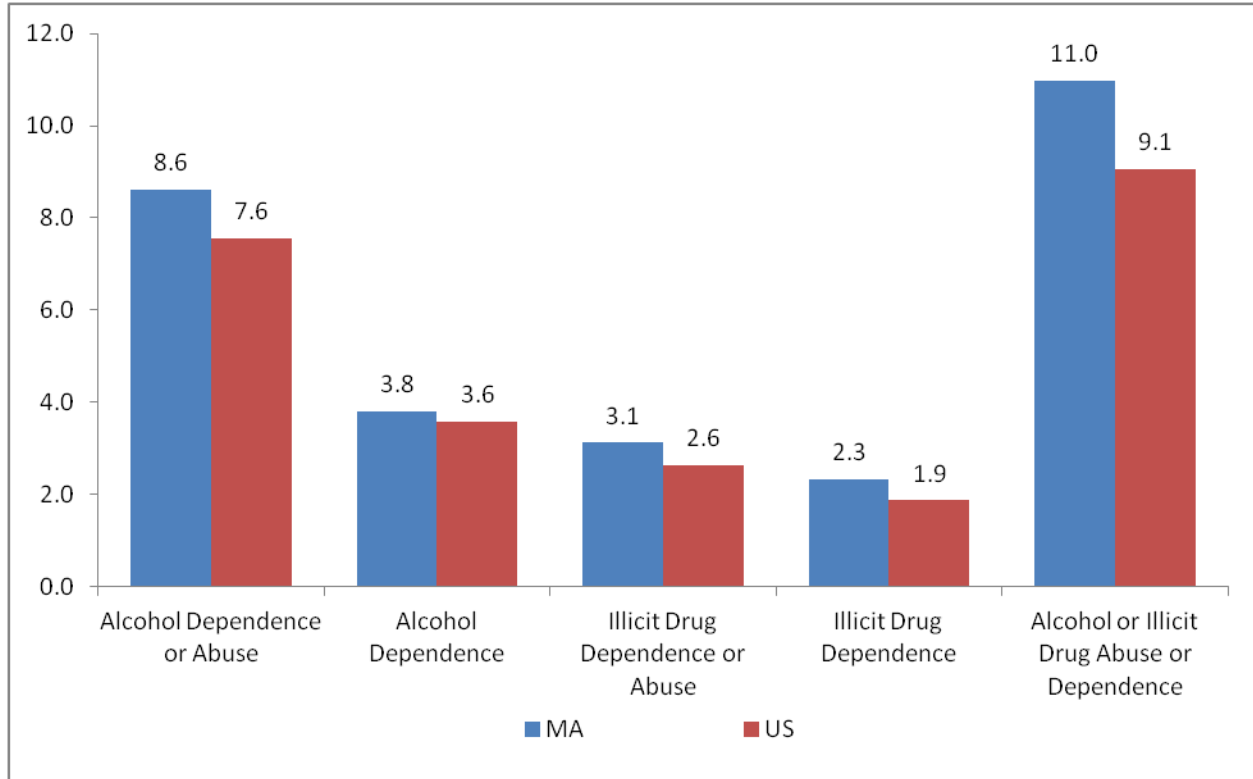
The Massachusetts percentages were also higher than those of the U.S. for marijuana use (10.1% vs. 6.7%) and for illicit drug use other than marijuana (4.2% vs. 3.5%). Higher percentages of alcohol use and binge alcohol use were also reported in Massachusetts as compared to the nation overall.

This trend of overall higher percentages of drug and alcohol use in Massachusetts as compared with the U.S. as a whole continues in the areas of drug and alcohol abuse and dependence. According to the SAMHSA National Surveys on Drug Use and Health (NSDUHs) for 2009 – 2010, within the past year 8.6% of Massachusetts adults age 18 and over reported alcohol abuse or dependence, with 3.8% reporting alcohol dependence, as opposed to 7.6% of adults in the country reporting alcohol abuse or dependence, and 3.6% reporting alcohol dependence.

The figures for illicit drug dependence or abuse are similar, with 3.1% of Massachusetts adults reporting illicit drug dependence or abuse in the past year as compared with 2.6% of adults nationwide and 2.3 % of adults in Massachusetts reporting illicit drug dependence as compared with 1.9% in the U.S. as a whole.

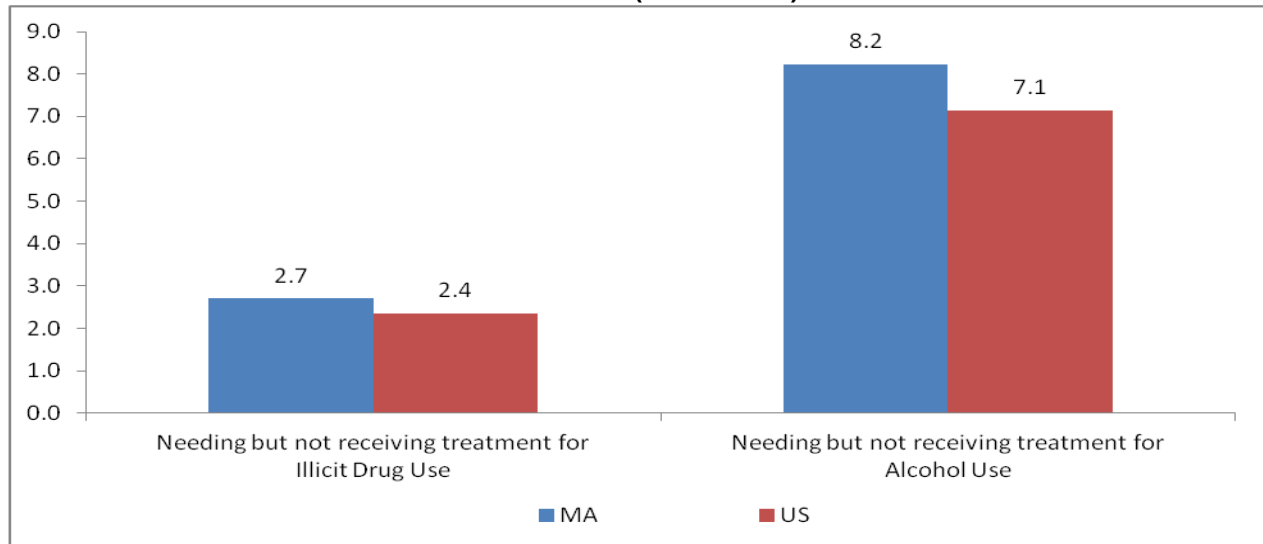
Finally the combined figure for alcohol or illicit drug abuse or dependence in the past year shows that 11% of Massachusetts adults admitted to having abused or being dependent on alcohol or illicit drugs as compared with 9.1% of adults in the U.S. The Massachusetts figure is 1.2 times the U.S. rate for this measure.

Percentage of Adults (18 and older) Reporting Past Year Substance Abuse/Dependence (2009 – 2010)



Source: U.S. Substance Abuse and Mental Health Services Administration website
<http://www.samhsa.gov/data/NSDUH/2k10State/NSDUHsae2010/Index.aspx>

Percentage of Adults (18 and older) Reporting Needing but not Receiving Treatment for Illicit Drug or Alcohol Use (2009 – 2010)



Source: U.S. Substance Abuse and Mental Health Services Administration website
<http://www.samhsa.gov/data/NSDUH/2k10State/NSDUHsae2010/Index.aspx>

According to the SAMHSA National Surveys on Drug Use and Health (NSDUHs) for 2009 – 2010, 2.7% of Massachusetts adults age 18 and over reported needing but not receiving treatment for illicit drug use in the past year as compared with 2.4% of adults in the nation. The figures for needing but not receiving treatment for alcohol use are higher with 8.2% of Massachusetts adults and 7.1% of U.S. adults reporting this situation.

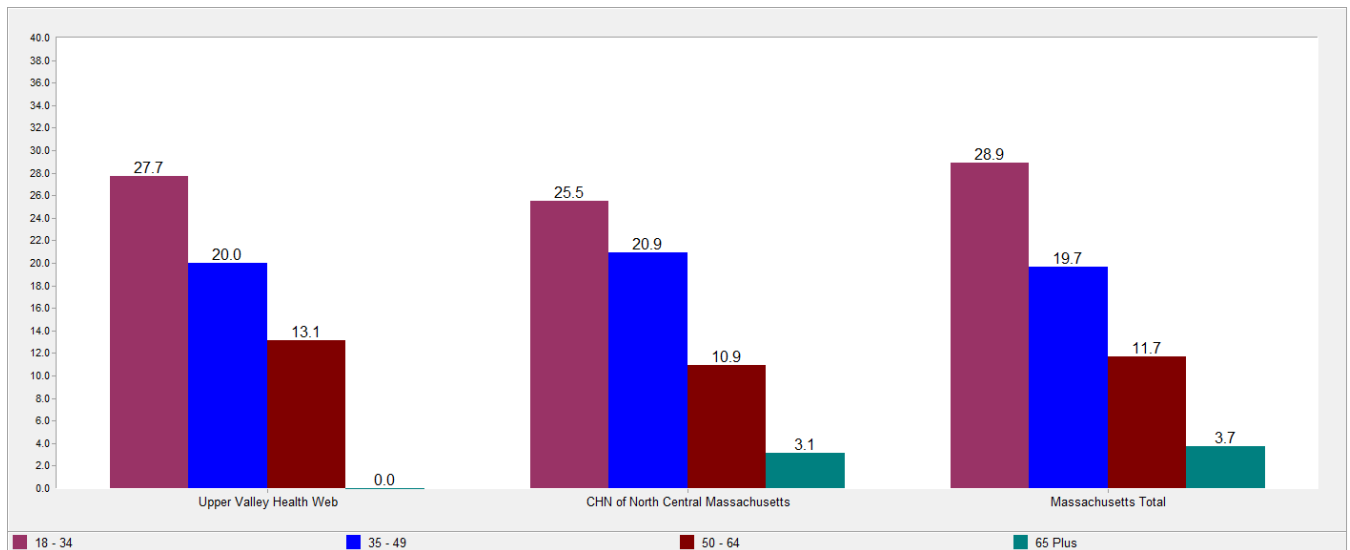
Binge Drinking

The following information related to binge drinking was sourced from the Behavioral Risk Factor Surveillance System (BRFSS) through MassCHIP. As mentioned previously, BRFSS data is not available individually for any of the communities or reporting regions within the MPH service area. The breakdown which most closely aligns with the MPH is at the Community Health Network Area (CHNA) level. The communities in the MPH region are part of two different CHNAs. Athol, Phillipston and Royalston are part of CHNA 2, the Upper Valley Health Web of Franklin County, making up 16.7% of the population of this CHNA. Clinton, Fitchburg, Gardner, Leominster, Princeton, Sterling, Templeton and Westminster are part of CHNA 9, the Community Health Network of North Central Massachusetts, making up 53.8% of the population in this CHNA. Data presented in this section represents respondents from CHNA 2 and CHNA 9.

Within Massachusetts, 17.3% of adult respondents to the Behavioral Risk Factor Surveillance System (BRFSS) survey during the 2005 – 2010 time period reported binge drinking within the last 30 days. Within CHNA 2 (Upper Valley Health Web) this percentage was slightly higher at 18%, while CHNA 9 (CHN of North Central Massachusetts) reported a slightly lower percent at 17.1%.

When this data is broken down by adult age groups, the percent reporting binge drinking within the past month was higher in the Commonwealth for 18 – 34 year olds at 28.9% vs. 27.7% and 25.5% in CHNA 2 and CHNA 9, respectively. CHNA 9 had a higher percentage of binge drinkers in the 35 – 49 age group at 20.9% than did CHNA 2 at 20% or the State at 19.7%. CHNA 2 had a higher percentage of binge drinkers in the 50 - 64 age group at 13.1% than did CHNA 9 at 10.9% or the State at 11.7%. Among adults age 65 and over, the State reported a binge drinking percent of 3.7%, while CHNA 9 was lower at 3.1% and the number for CHNA 2 was suppressed.

Percent of Binge Drinking Among Adults in Past 30 Days by Age Group (2005 – 2010)



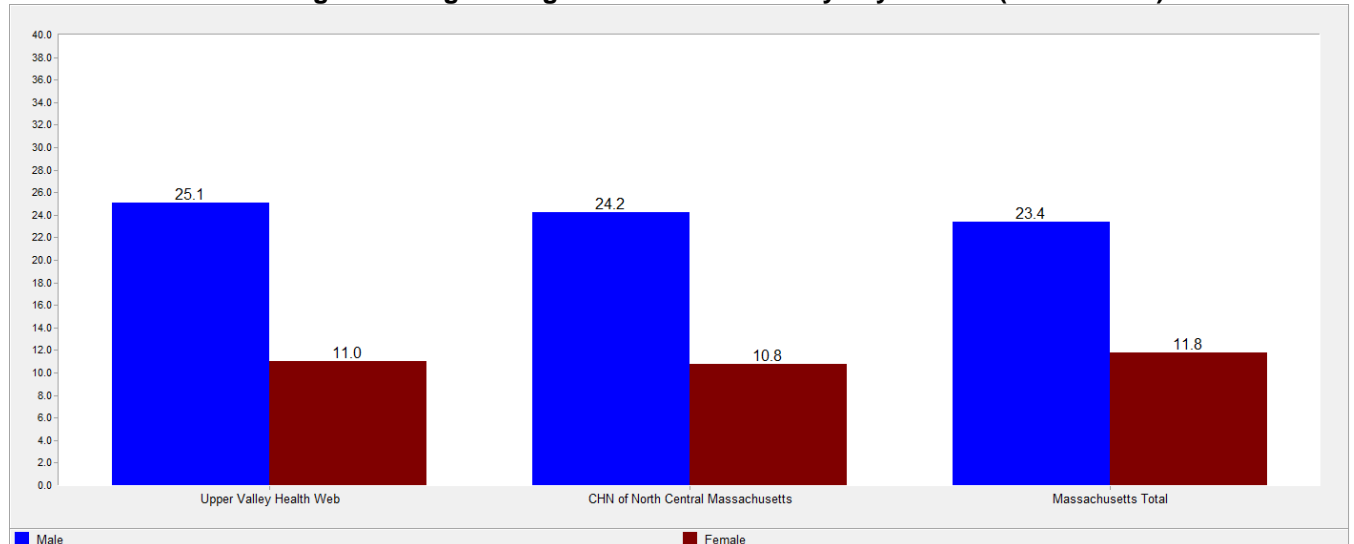
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 13.4% binge alcohol use in past month

Healthy People 2020 Goal = 24.4% binge alcohol use in past month

The percentage of adult women who reported binge drinking in the past 30 days was slightly lower in both CHNA 2 (11%) and CHNA 9 (10.8%) than in the Commonwealth (11.8%). However, the percentage of men who reported binge drinking was higher in CHNA 2 at 25.1% and CHNA 9 at 24.2% as compared with the State at 23.4%.

Percent of Binge Drinking Among Adults in Past 30 Days by Gender (2005 – 2010)

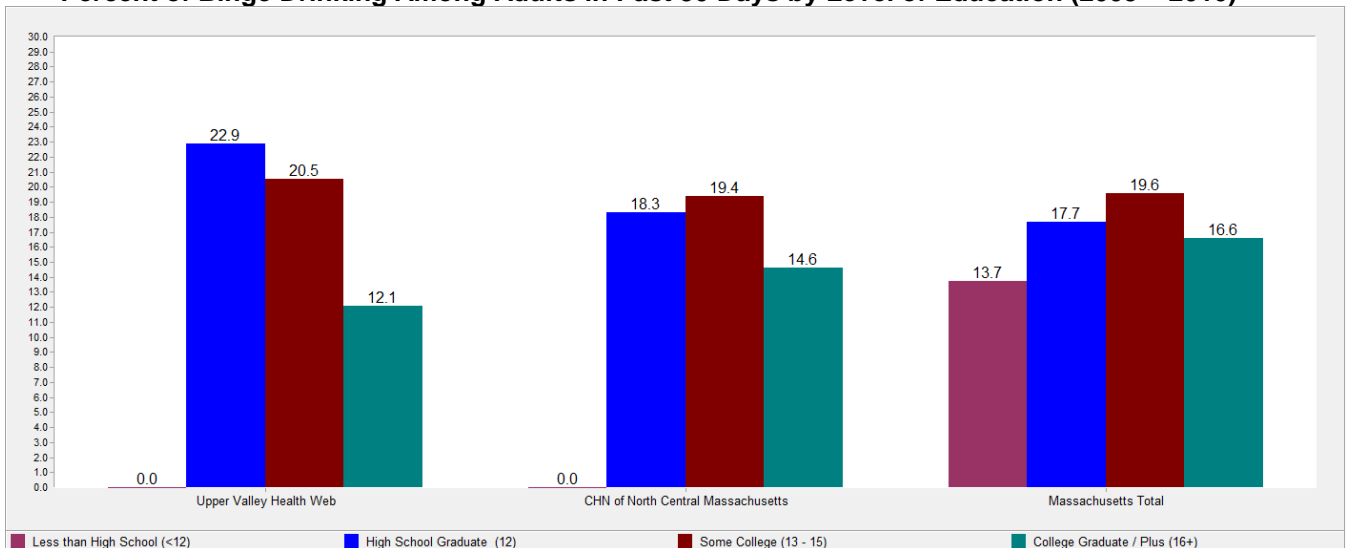


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 13.4% binge alcohol use in past month
Healthy People 2020 Goal = 24.4% binge alcohol use in past month

The numbers of respondents by race were too few to provide meaningful data at the CHNA level relative to binge drinking. Within the Commonwealth as a whole, the highest percentage of binge drinking was reported among White, non-Hispanics at 18.3%, followed by Hispanics at 14.8%, Black non-Hispanics at 12.9% and Asians at 7%.

Percent of Binge Drinking Among Adults in Past 30 Days by Level of Education (2005 – 2010)



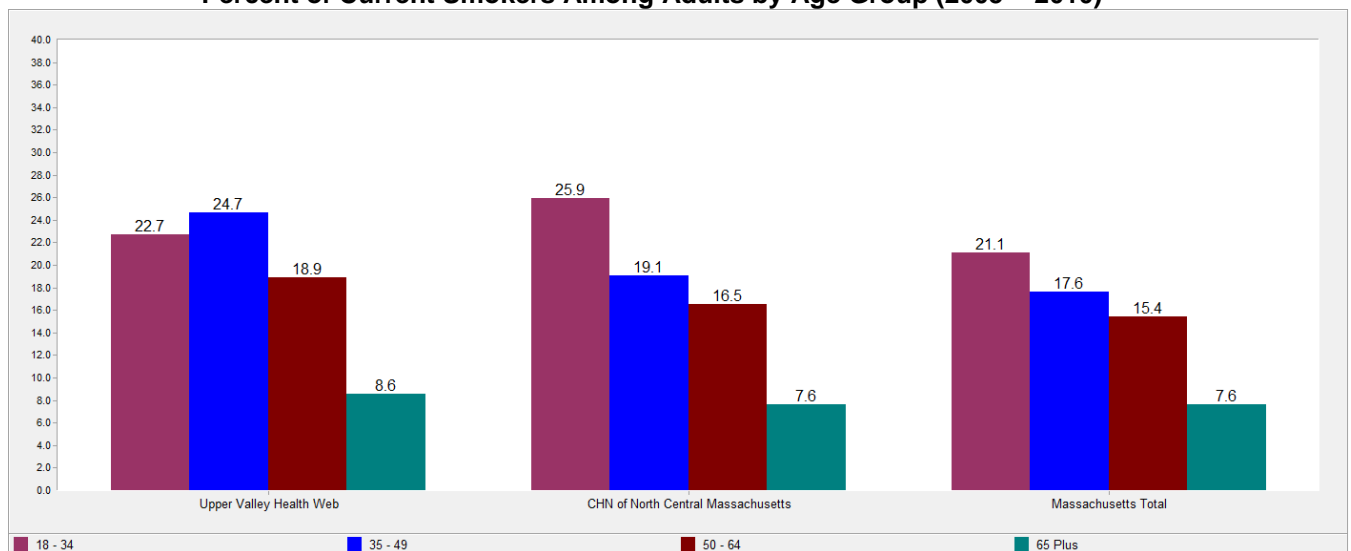
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 13.4% binge alcohol use in past month
Healthy People 2020 Goal = 24.4% binge alcohol use in past month

Data for binge drinking by adults with less than a high school education was suppressed for both CHNA 2 and CHNA 9, while within the Commonwealth, 13.7% of adults with less than a high school education reported binge drinking in the past month. However higher percentages of high school graduates in both CHNA 2 (22.9%) and CHNA 9 (18.3%) admitted to binge drinking than high school graduates in the State overall did (17.7%). Among adults with some college, 20.5% of CHNA 2 adults reported binge drinking as compared with 19.4% in CHNA 9 and 19.6% in the State. College graduates in both CHNA 2 and CHNA 9 were less likely to experienced binge drinking in the past month, at 12.1 % and 14.6%, respectively, as compared with those in the State at 16.6%.

Smoking

Percent of Current Smokers Among Adults by Age Group (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

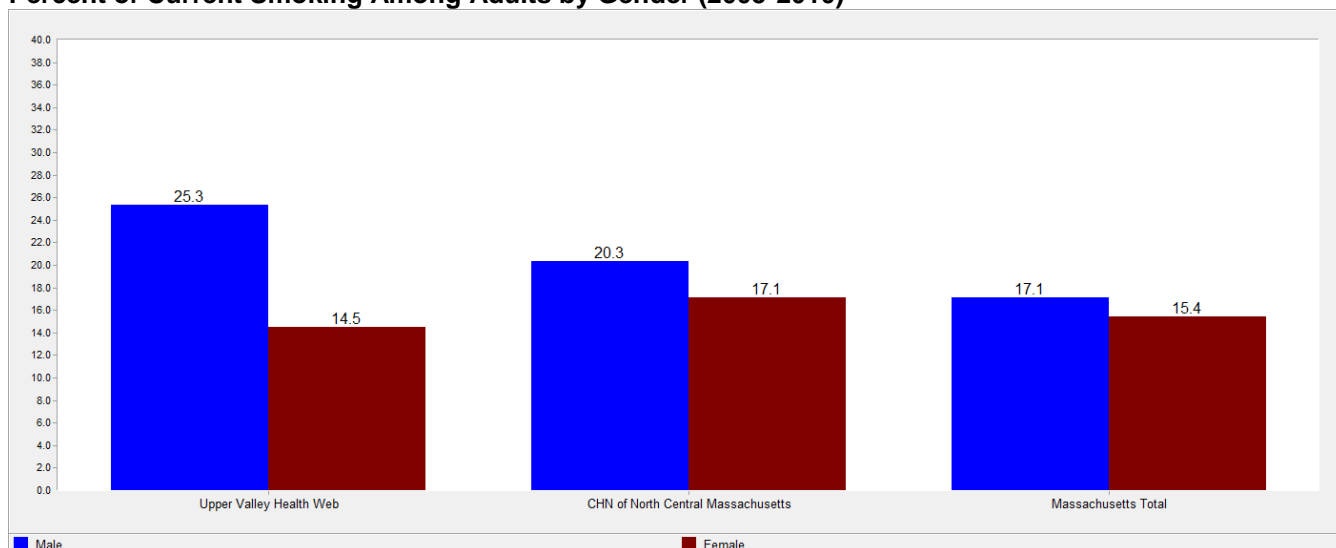
Healthy People 2010 Goal = 12% of adults 18 and older (age adjusted)

Healthy People 2020 Goal = 12% of adults 18 and older (age adjusted)

Within Massachusetts, 16.2% of adult respondents to the Behavioral Risk Factor Surveillance System (BRFSS) survey during the 2005 – 2010 time period reported being current smokers who smoke regularly. Within both CHNA 2 and CHNA 9 this percentage was higher at 19.9% and 18.6%, respectively.

In the 3 age groups less than 65, there was consistently a higher percentage of smokers in each of the CHNAs than in the Commonwealth. In CHNA 2, the highest percentage of smokers was found in the 35 – 49 age group at 24.7%, as compared with 19.1% for CHNA 9 and 17.6 % for the State in this age group. In CHNA 9 the highest percentage of smokers was found in the 18 – 34 age group at 25.9%, as compared with 22.7% for CHNA 2 and 21.1% for the State in this age group. Both CHNA 2 (18.9%) and CHNA 9 (16.5%) had a higher percentage of smokers in the 50 – 64 age group than did the State (15.4%). In the 65 Plus age group, CHNA 2 had more smokers at 8.6% than did the CHNA 9 and the State, both at 7.6%.

Percent of Current Smoking Among Adults by Gender (2005-2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 12% of adults 18 and older (age adjusted)

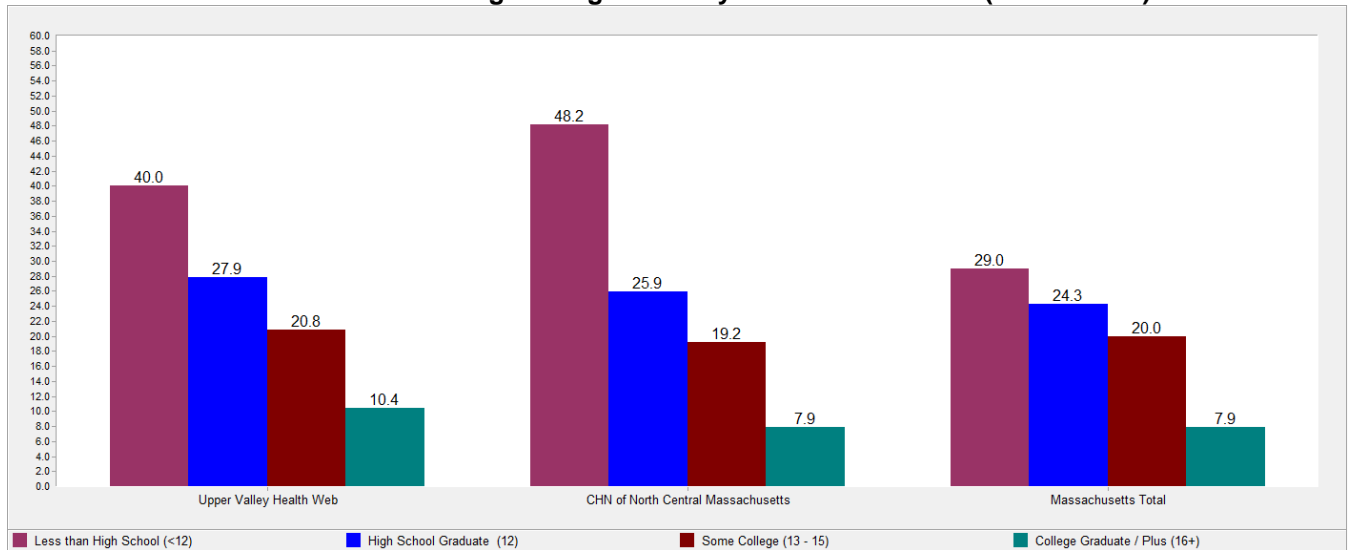
Healthy People 2020 Goal = 12% of adults 18 and older (age adjusted)

In CHNA 2, 25.3% of men were smokers as compared with 20.3% of men in CHNA 9 and 17.1 % of men in Massachusetts, indicating that men in CHNA 2 are almost 1.5 times as likely to smoke as men in the State as a whole. However, 14.5% of women in CHNA 2 were smokers, a lower percentage than both CHNA 9 at 17.1% and the State at 15.4%.

The numbers of respondents by race were too few to provide meaningful data for both CHNA 2 and CHNA 9. Within the Commonwealth as a whole, the highest percentage of current smoking was reported among Black, non-Hispanics at 17.4%, followed by Hispanics at 16.7%, White, non-Hispanics at 16.3% and Asians at 6.5%.

Across the board within CHNA 2, CHNA 9 and the State, the higher the educational level, the less likely the adult was to be a smoker. Current smoking by adults with less than a high school education was much higher in CHNA 9 at 48.2% and CHNA 2 at 40% versus the State at 29%, indicating that adults with less than a high school education in CHNA 9 were 1.7 times as likely to smoke as adults with less than a high school education in the State as a whole. Higher percentages of high school graduates in CHNA 2 (27.9%) and CHNA 9 (25.9%) smoked than high school graduates in the Commonwealth (24.3%). The percentages of smokers among adults with some college were comparable among CHNA 2, CHNA 9 and the Commonwealth, while the percentage of smokers among college graduates was higher in CHNA 2 at 10.4% as compared with CHNA 9 and the State, both at 7.9%.

Percent of Current Smoking Among Adults by Level of Education (2005 – 2010)

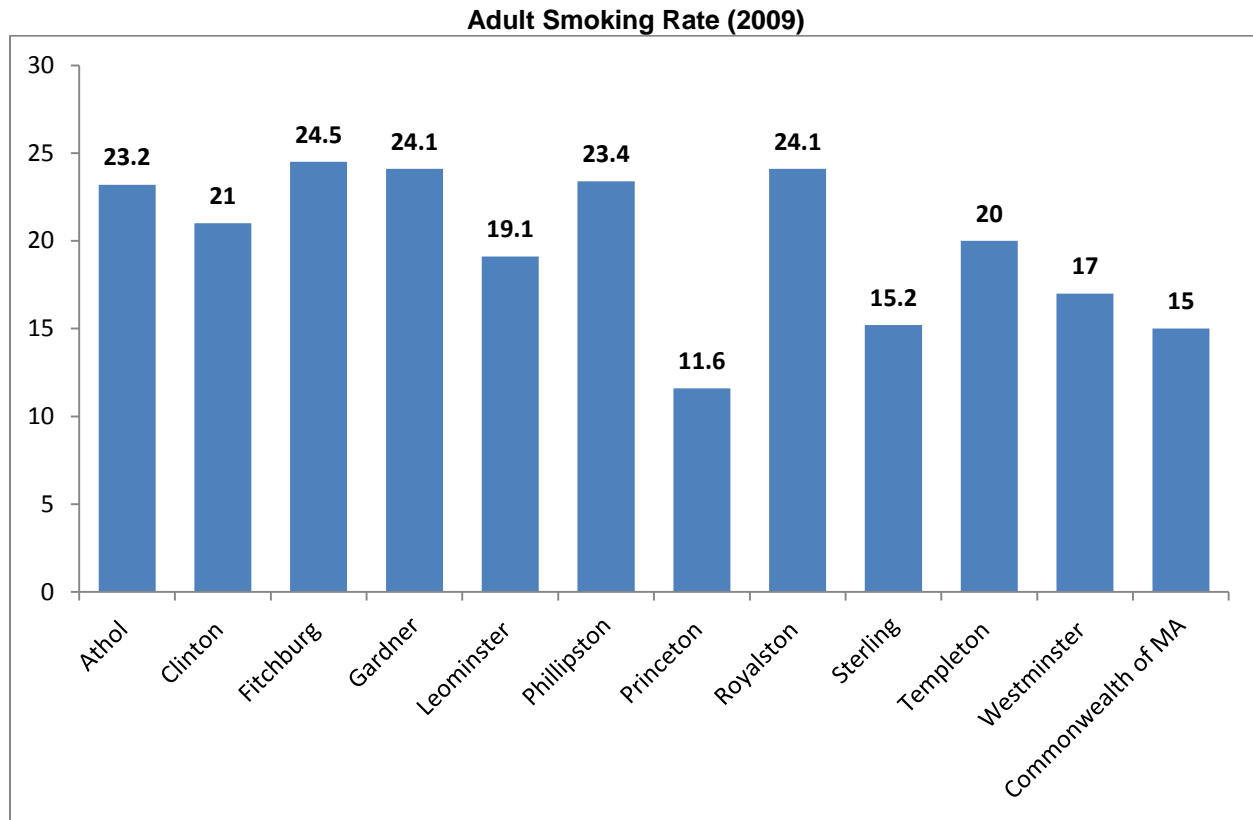


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 12% of adults 18 and older (age adjusted)

Healthy People 2020 Goal = 12% of adults 18 and older (age adjusted)

Information on smoking behavior is also available from the Massachusetts Department of Public Health, Massachusetts Tobacco Cessation and Prevention Program, Tobacco Automated Fact Sheet Information (TAFI) for cities and towns within the State. According to TAFI, 15% of Massachusetts residents age 18 and over smoked in 2009. Within the MPHN region, all of the cities/towns reported higher adult smoking rates than the Commonwealth, with the exception of Princeton at 11.6%. Seven of the communities reported smoking rates of 20% or more, with high rates of adult smokers reported in Fitchburg at 24.5% (63% higher than the State), Gardner and Royalston at 24.1% (61% higher than the State), Phillipston at 23.4% (56% higher than the State), Athol at 23.2% (55% higher than the State), Clinton at 21% (40% higher than the State), and Templeton at 20% (33% higher than the State). Leominster at 19.1% (27% higher than the State) and Westminster at 17% (13% higher than the State) also reported higher adult smoking rates than the Commonwealth as a whole. Sterling, with a smoking rate of 15.2% had a rate similar to the State in this regard.

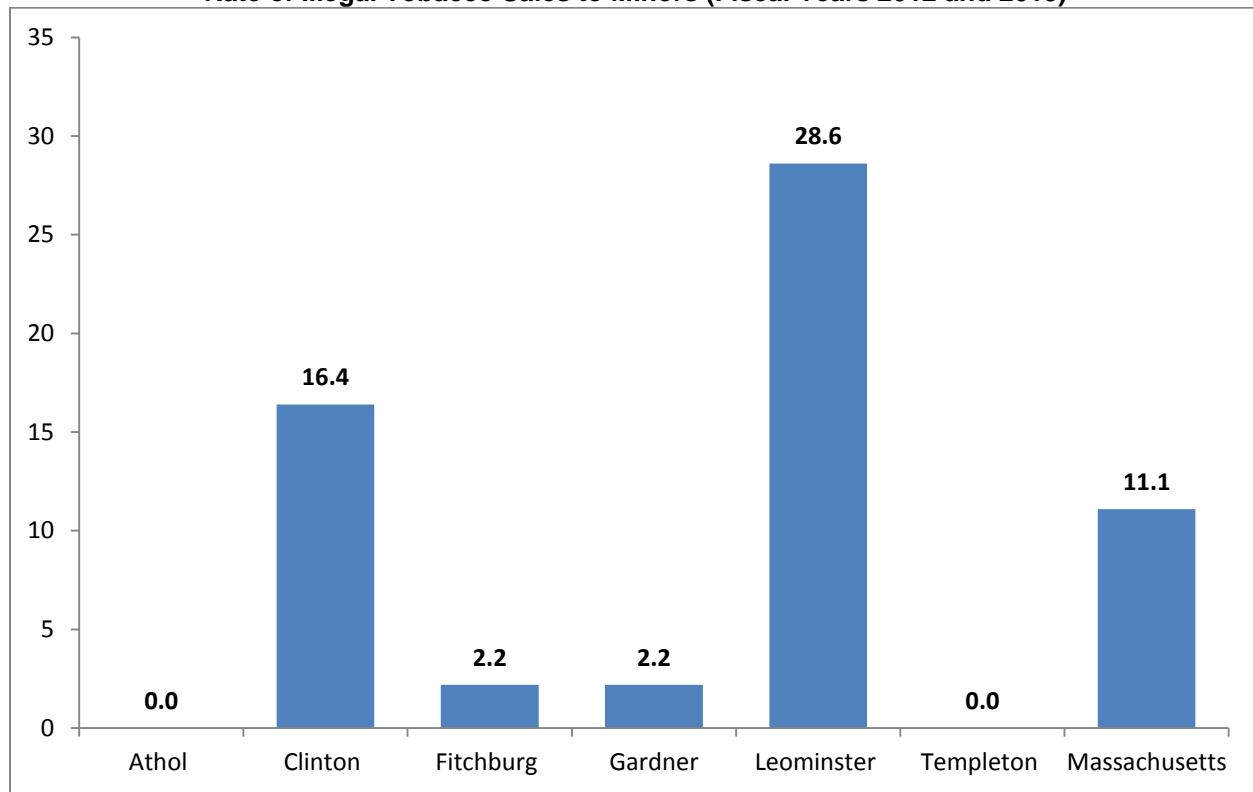


Source: Massachusetts Department of Public Health, Massachusetts Tobacco Cessation and Prevention Program, TAFI Sheets, website (<http://www.makesmokinghistory.org/>)

Healthy People 2010 Goal = 12% of adults 18 and older (age adjusted)
Healthy People 2020 Goal = 12% of adults 18 and older (age adjusted)

The TAFI sheets also contain information on the illegal sale of tobacco to minors for some of the cities/towns in the State. Six of the MPH community have this information on their TAFI sheets. Within Massachusetts, for fiscal years 2012 and 2013, the rate of illegal tobacco sales to minors (those under 18) was 11.1%. Four of the six MPH communities with this data reported rates of illegal tobacco sales to minors lower than that of the Commonwealth. Templeton and Athol both reported a rate of zero percent of illegal tobacco sales to minors, while both Fitchburg and Gardner reported a rate of 2.2% of illegal tobacco sales to minors. The highest rates of illegal tobacco sales to minors were reported in Leominster at 28.6% (158% higher than the State) and in Clinton at 16.4% (48% higher than the State).

Rate of Illegal Tobacco Sales to Minors (Fiscal Years 2012 and 2013)



Source: Massachusetts Department of Public Health, Massachusetts Tobacco Cessation and Prevention Program, TAFI Sheets, website (<http://www.makesmokinghistory.org/>)

Opioid-related Fatal Overdose Rate

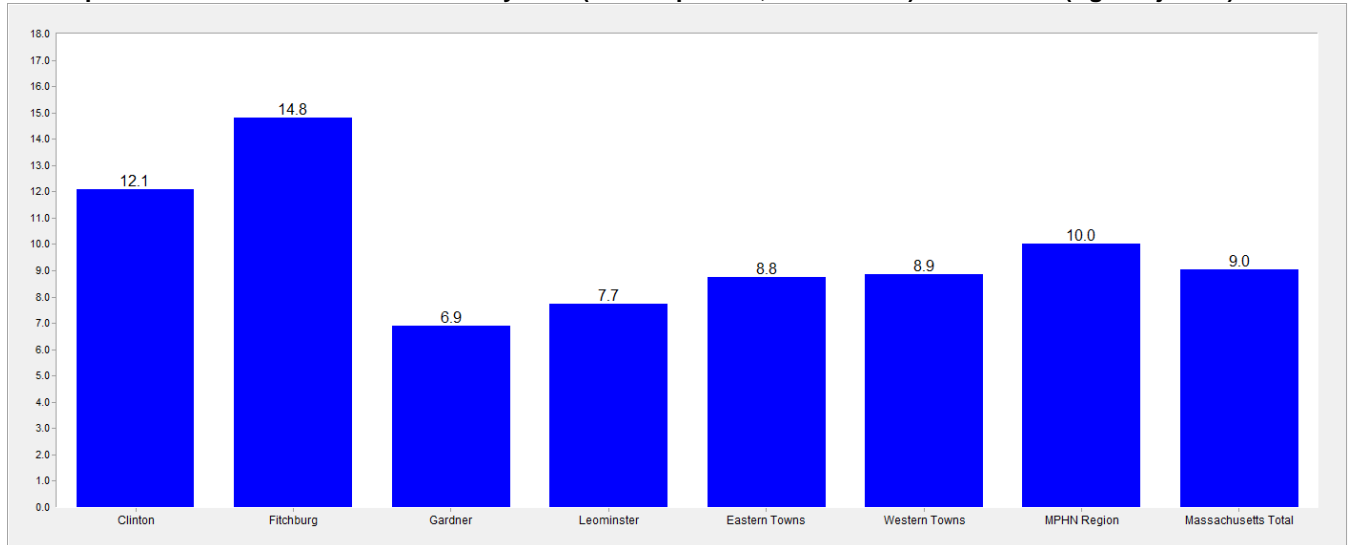
According to MassCHIP, in Massachusetts there were 3,594 deaths due to Opioid-related overdoses in the 2005 – 2010 timeframe, for an age-adjusted Opioid-related Overdose Mortality Rate of 9 per 100,000. Within the MPH region, there were 97 deaths due to Opioid-related overdoses for an age-adjusted Opioid-related Overdose Mortality Rate of 10 per 100,000, a rate higher than that of the Commonwealth overall.

Two of the reporting regions in the MPH service area reported an Opioid-related Overdose Mortality Rate higher than the State during this time period. Fitchburg had the highest Opioid-related Overdose Mortality Rate in the region at 14.8, followed by Clinton at 12.1. The lowest age-adjusted Opioid-related Overdose Mortality Rate was reported in the Gardner at 6.9, followed by Leominster at 7.7, the Eastern Towns at 8.8 and the Western Towns at 8.9.

Within the Commonwealth, the age-adjusted Opioid-related Overdose Mortality Rate varied among racial/ethnic groups during this time period, with a high of 10.1 for White, non-Hispanics, followed by rates of 7.8 for Hispanics, 6.9 for Black, non-Hispanics and 0.4 for Asians. Within the MPH,

the numbers are too small to provide a meaningful break out of data by race/ethnicity or by city/town.

Opioid-related Fatal Overdose Mortality Rate (Deaths per 100,000 Persons) 2005 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Consistent with the quantitative data presented in this section, substance abuse was seen as a significant problem among Focus Group participants and Key Informant Interviewees. All 13 Focus Groups talked emphatically (e.g., “Yes!”, “Absolutely”, “It is huge.”) about substance abuse being a problem in their communities. Six of the 13 Focus Groups specifically mentioned concerns about young people. Concerns about the abuse of prescription medications was mentioned in 5 of the 13 groups; alcohol was mentioned in 5 of the groups; tobacco, marijuana and heroin were mentioned in 2; narcotics in 1.

Most groups talked about “access” as the leading cause for drug use. Lack of parental oversight and “nothing else for youth to do” were also talked about as a reason for substance abuse being a problem among youth. Other causes for the pervasiveness of substance abuse included “unemployment,” “boredom,” and “loneliness.”

In almost all the Focus Groups, the questions about legalization of marijuana generated a lot of discussion. Concerns about the new laws increasing access were voiced in 12 of the 13 groups. In many of these groups negative consequences for their communities were voiced, as in: “It will... promote criminal activity.” Some participants stated that the new laws “won’t change anything”; others supported the medical use of marijuana for those who need it.

Overall, there seemed to be a lack of awareness regarding the proper disposal of prescription medications and “sharps.” A similar overall lack of awareness was evident regarding all the resources available to help with the issues of substance abuse in their communities. Notably, however, there were individuals in all the groups that were able to share valuable, accurate information. Because of the different pieces of information voiced in each group by individuals, each group as a whole was better informed after the session. This seems to indicate that this type

of group discussion can be used as an effective vehicle to address issues such as these in our communities.

Key Informants in 7 of the 11 cities and towns and in the GLBT community spontaneously mentioned substance abuse as one of the largest public health issues facing their communities. When asked about substance abuse specifically, Key Informants from all 11 cities and towns and the GLBT community acknowledged that substance abuse is, to a greater or lesser degree, a problem in their communities.

“[Substance Abuse] “destroys family and community.”

Abuse of alcohol and prescription medications were the most frequently identified substance abuse problems. Opioid use was also mentioned by several Key Informants.

Key informants from five of the cities and towns also talked about substance abuse in terms of prevention.

“We need to start talking to kids about [substance abuse] as young as possible so we can stop this cycle.”

With a couple of exceptions, the overall response to the questions regarding the new medical use of marijuana laws was that it probably will not cause any significant changes. Some also talked about the benefits for those individuals with certain medical conditions.

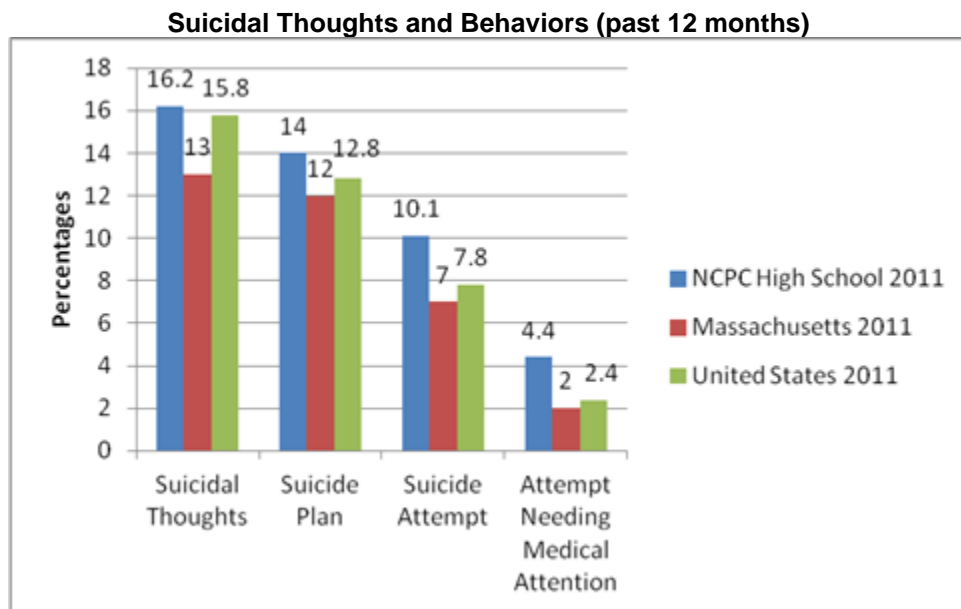
All Key Informants from all communities seemed well aware of prescription take back days and drop boxes – even those who lived in communities where the latter do not yet exist. The overall feeling was that these initiatives are helpful and that they would like to see more happening.

SUICIDE

Child and Youth Suicide

Youth Risk Behavior Survey and Youth and Community Survey data presented above in the section on Mental Health and Substance Abuse indicated that youth in North Central Massachusetts evidenced lower rates of depression than their counterparts the Nation, but higher rates than their counterparts in the State. Data presented here related to suicide show that a greater number of North Central youth are considering and taking actions toward suicide than their peers in Massachusetts and the United States. Specifically, 16.2% of area high school youth versus 13% of youth in Massachusetts and 15.8% of youth in the United States seriously considered suicide during the 12 months prior to the survey. In addition, 14.0% of area youth had developed suicide plans during that same time period versus 12% and 12.8% of youth in the state and nation, respectively.

According to the *Youth Risk Behavior Survey and Youth and Community Survey*, 10.1% of area high school youth reported attempting suicide at least one time during the 12 months prior to the survey. This percentage was greater than the percentage of youth across Massachusetts (7%) and the United States (7.8%) who attempted suicide. Furthermore, 4.4% of area high school youth attempted suicide in such a way that they needed medical treatment following the attempt. This percentage is higher than state (2%) and national (2.4%) figures.



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

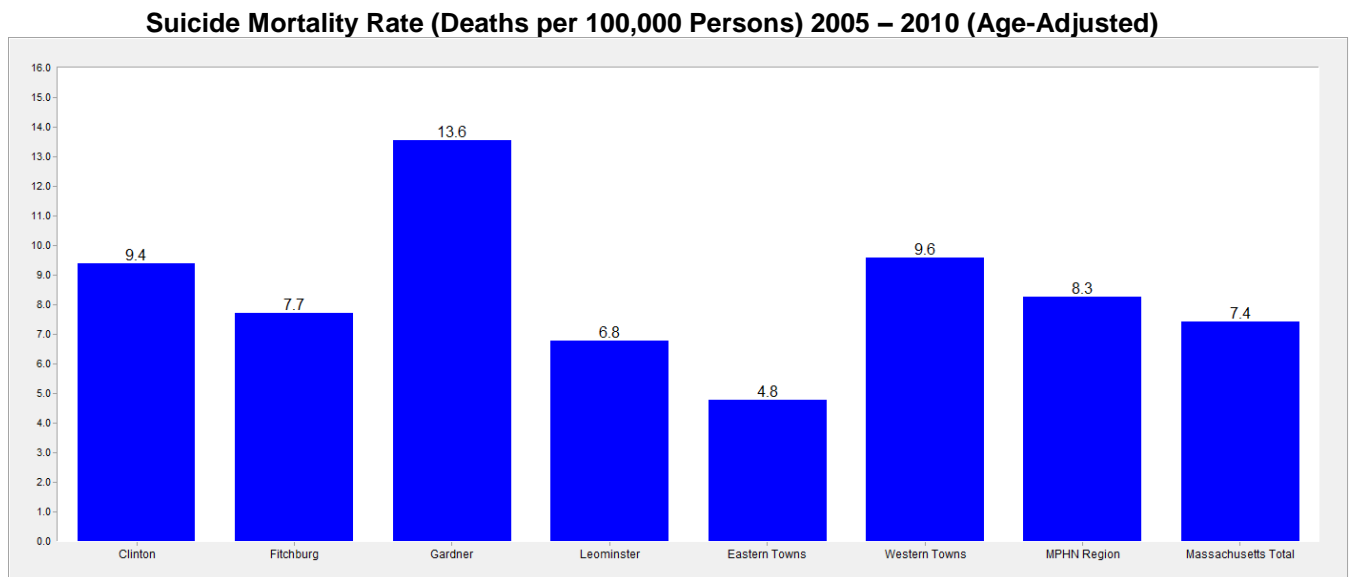
Adult Suicide

Overall Suicide Mortality Rate

In Massachusetts there were 3,031 deaths due to suicide in the 2005 – 2010 timeframe, for an age-adjusted Suicide Mortality Rate of 7.4 per 100,000. Within the MPH region, there were 81 deaths due to suicide in this time period, for an age-adjusted Suicide Mortality Rate of 8.3, a rate higher than that of the Commonwealth as a whole.

Within the reporting regions in the MPH service area, four communities exhibited a Suicide Mortality Rate higher than the State during this time period. Gardner had the highest Suicide Mortality Rate at 13.6, followed by the Western Towns at 9.6, Clinton at 9.4 and Fitchburg at 7.7. The actual numbers of suicides in these communities during this time period were as follows: 17 in Gardner, 12 in the Western Towns, 8 in Clinton and 19 in Fitchburg. The lowest age-adjusted Suicide Mortality Rates were reported in the Eastern Towns at 4.8 (7 cases) and Leominster at 6.8 (18 suicides).

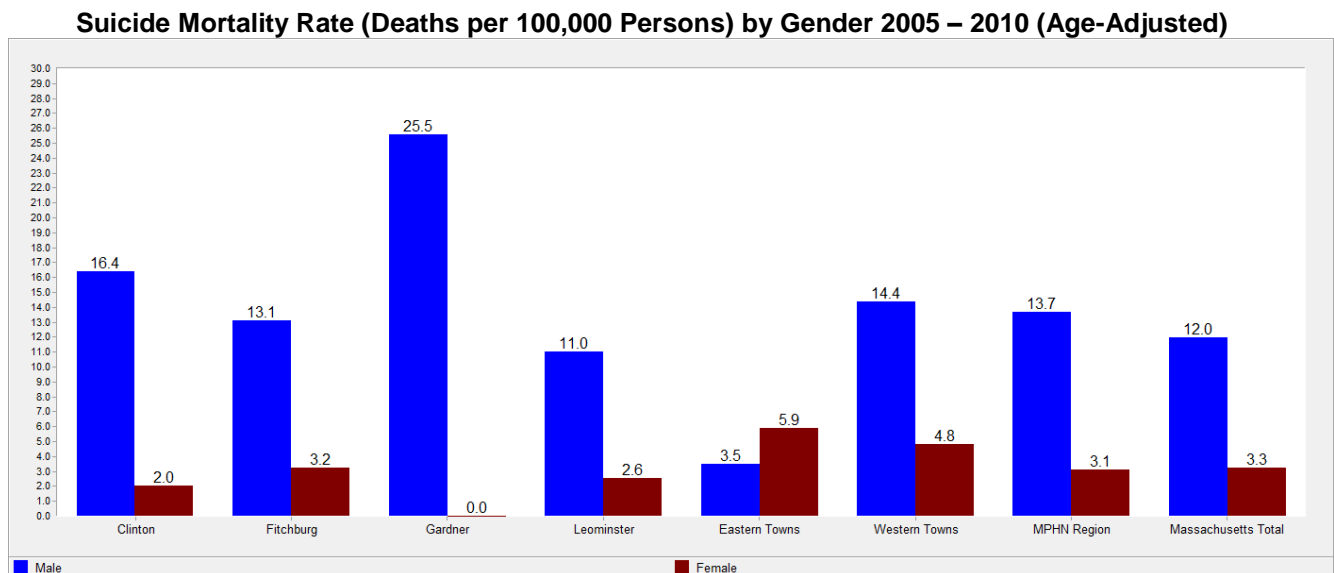
Within the Commonwealth, the age-adjusted Suicide Mortality Rate varied among racial/ethnic groups during this time period, with a high of 8.1 for White, non-Hispanics, followed by rates of 4.5 for Black, non-Hispanics, 4.3 for Asians and 4.0 for Hispanics. The numbers are too small to provide a meaningful break out of data by race/ethnicity for the reporting regions.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 4.8 per 100,000
Healthy People 2020 Goal = 10.2 per 100,000

In Massachusetts, the age-adjusted Suicide Mortality Rate for 2005 – 2010 was much higher for males at 12 per 100,000 than for females at 3.3 per 100,000. This trend of higher Suicide Mortality Rates among males than females was also true for the MPH region as a whole and for all of the reporting regions in the area, except for the Eastern Towns. The highest age-adjusted Suicide Mortality Rate was reported among males in Gardner at 25.5 per 100,000, more than twice the rate reported for males within the Commonwealth as a whole. Clinton at 16.4, the Western Towns at 14.4, and Fitchburg at 13.1 also reported Suicide Mortality Rates for males which were higher than that of the State, as did the MPH region as a whole at 13.7. The lowest Suicide Mortality Rate for males in the region was reported in the Eastern Towns at 3.5.



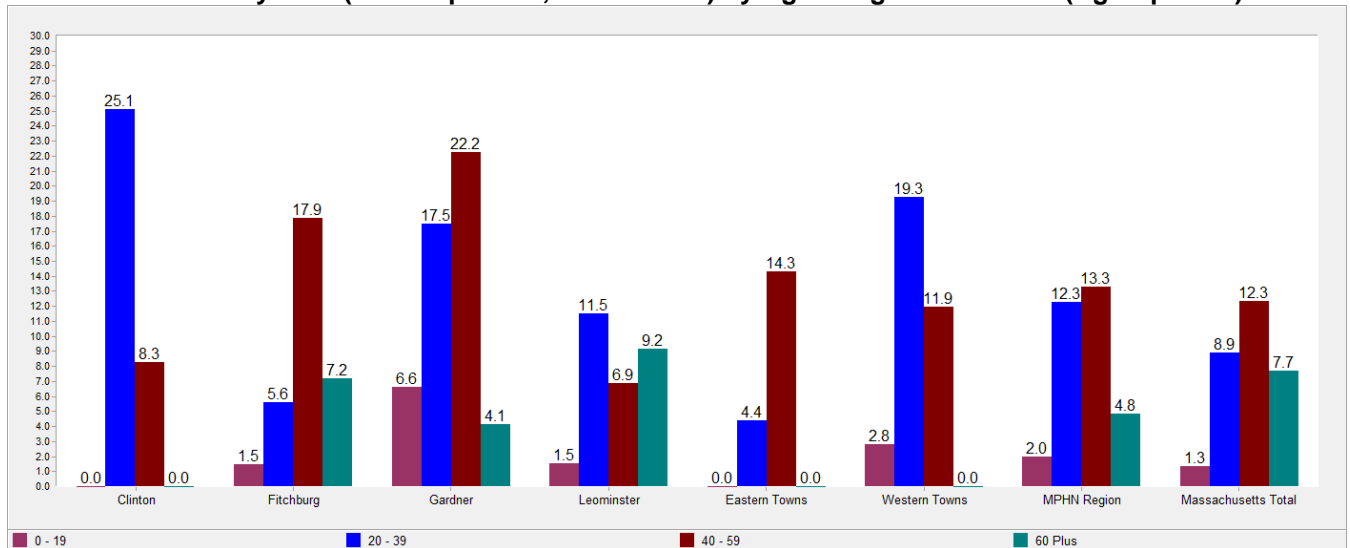
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 4.8 per 100,000

Healthy People 2020 Goal = 10.2 per 100,000

The highest age-adjusted Suicide Mortality Rate for females in the region was reported in the Eastern Towns at 5.9 per 100,000, almost 1.8 times the rate reported for females within the Commonwealth as a whole. The Western Towns at 4.8 also reported a Suicide Mortality Rate for females which was higher than that of the State. The lowest Suicide Mortality Rate for females in the region was reported in Gardner, where there were zero suicides by females in this 5 year period.

Suicide Mortality Rate (Deaths per 100,000 Persons) by Age Range 2005 – 2010 (Age-Specific)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 4.8 per 100,000

Healthy People 2020 Goal = 10.2 per 100,000

Within the Commonwealth, the highest age-specific Suicide Mortality Rate per 100,000 was reported among people ages 40 – 59 at 12.3, followed by 20 – 39 year olds at 8.9, people ages 60 and over at 7.7 and those 19 years old and younger at 1.3. Within the MPHN region as a whole, the age-specific Suicide Mortality Rate followed a similar pattern. However, the rates were higher for all of the age groups except for 60+.

It should be noted that within the State there were no suicides among children less than 10 years old, 14 suicides among 10 – 14 year olds and 116 among 15 – 19 year olds. In the MPHN region as a whole, as well as within the reporting regions, there were no suicides reported among children less than 15 years old, so the 0 – 19 age group is made up entirely of teens between the ages of 15 and 19.

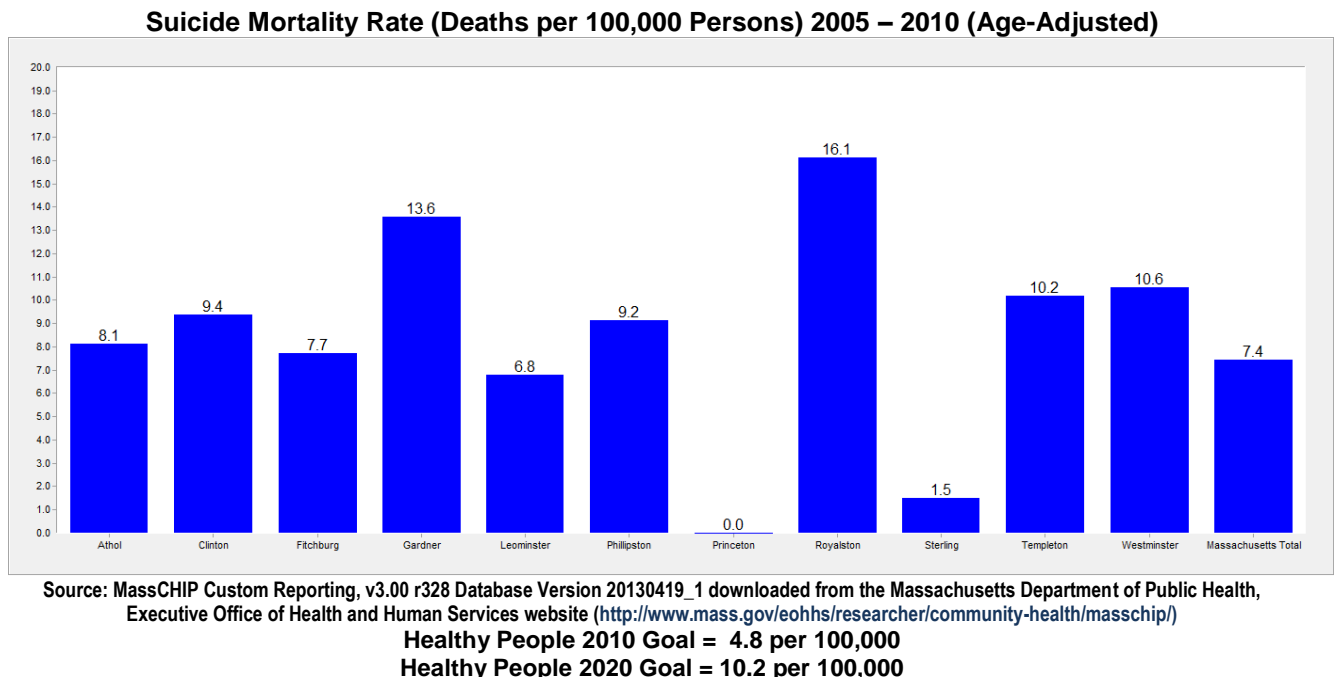
In Fitchburg, Gardner and the Eastern Towns, the highest Suicide Mortality Rate was reported among those ages 40 – 59, while in Clinton, Leominster and the Western Towns, the highest Suicide Mortality Rate was reported among those ages 20 – 39. The highest Suicide Mortality Rate in the region was reported among those ages 20 – 39 in Clinton at 25.1, followed by those ages 40 – 59 in Gardner at 22.2 and those 20 – 39 in the Western Towns at 19.3.

The highest age-specific Suicide Mortality Rate among 0 - 19 year olds was reported in Gardner at 6.6, five times the rate reported in the State for this age group. The highest age-specific Suicide Mortality Rate among those 60 and older was reported in Leominster at 9.2, followed by Fitchburg at 7.2.

The zeroes on the chart above reflect that there were no cases reported in that geographic area for that age group.

Several of the individual communities within the MPHN region reported age-adjusted Suicide Mortality Rates which were higher than that of the State. Although Royalston reported a very high Suicide Mortality Rate of 16.1, this was based on only 1 suicide in this time period. Phillipston and

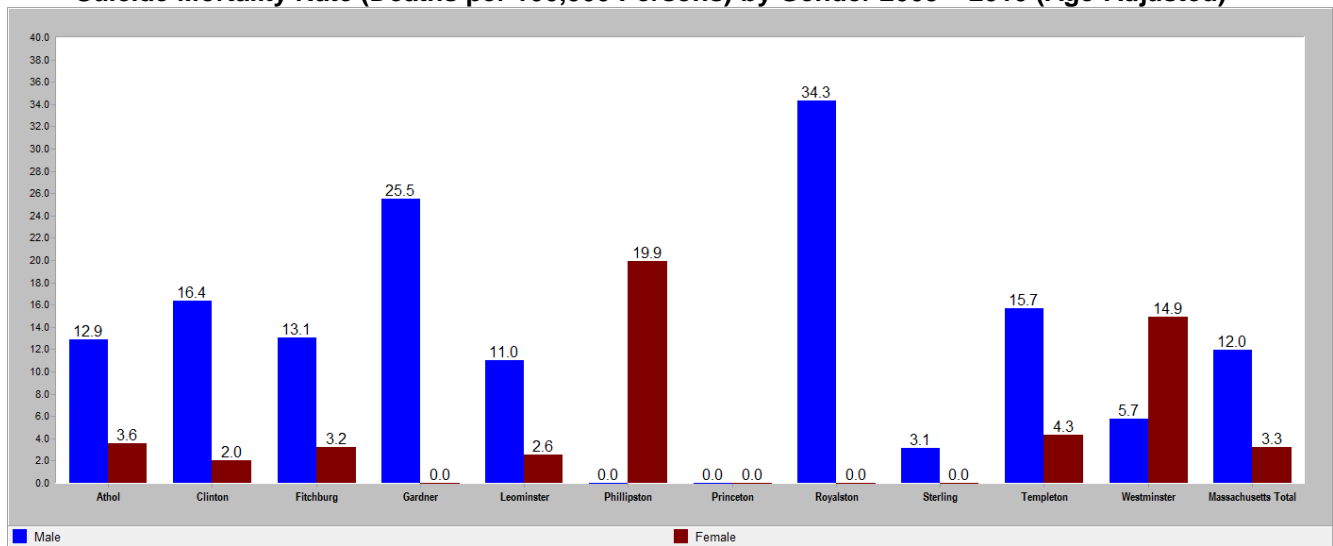
Sterling also reported 1 suicide each, while Princeton did not experience any suicides during this time period. Relatively high age-adjusted Suicide Mortality Rates were reported in Westminster at 10.6 (6 cases), Templeton at 10.2 (5 cases) and Athol at 8.1 (5 cases).



As discussed previously, in Massachusetts, the age-adjusted Suicide Mortality Rate for 2005 – 2010 was much higher for males at 12 per 100,000 than for females at 3.3 per 100,000. This trend of higher Suicide Mortality Rates among males than females was also true for all of the communities within the MPH region, except for Phillipston and Westminster. The highest age-adjusted Suicide Mortality Rate was reported among males in Royalston at 34.3 per 100,000, almost 2.9 times the rate reported for males within the Commonwealth as a whole. However, this was based on 1 suicide. Templeton's age-adjusted Suicide Mortality Rate for males of 15.7 was based on 4 suicides in this time period. The lowest Suicide Mortality Rates for males in the region were reported in Phillipston and Princeton, with zero suicides by males in this time period.

Phillipston and Westminster both reported a higher age-adjusted Suicide Mortality Rate for females than for males in this time period. Phillipston's rate of 19.9 per 100,000 was 6 times that of the State for females, but was based on 1 female suicide in this time period. Westminster's rate of 14.9 per 100,000 was 4.5 times that of the State for females and was based on 4 suicides.

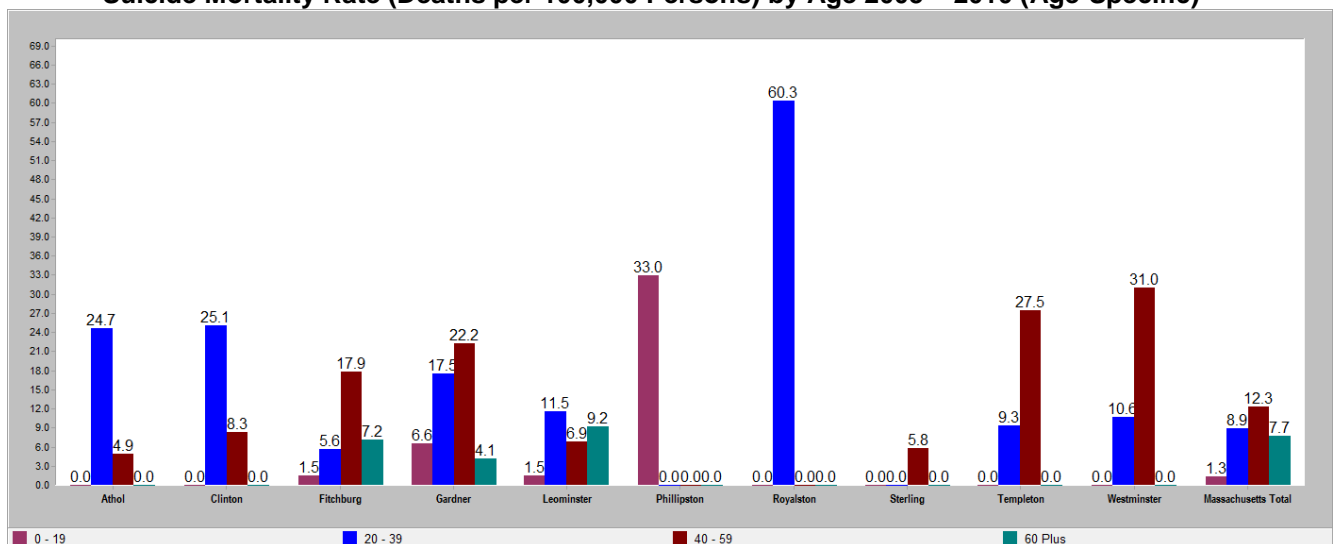
Suicide Mortality Rate (Deaths per 100,000 Persons) by Gender 2005 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)
 Healthy People 2010 Goal = 4.8 per 100,000
 Healthy People 2020 Goal = 10.2 per 100,000

As mentioned above, within the Commonwealth, the highest age-specific Suicide Mortality Rate per 100,000 was reported among people ages 40 – 59 at 12.3, followed by 20 – 39 year olds at 8.9, people ages 60 and over at 7.7 and those 19 years old and younger at 1.3. Within the individual communities in the MPHN region, the age-specific Suicide Mortality Rate varied among the different age groups. Please note that Princeton has been eliminated from the graph below because there were zero suicides reported during this time period.

Suicide Mortality Rate (Deaths per 100,000 Persons) by Age 2005 – 2010 (Age-Specific)

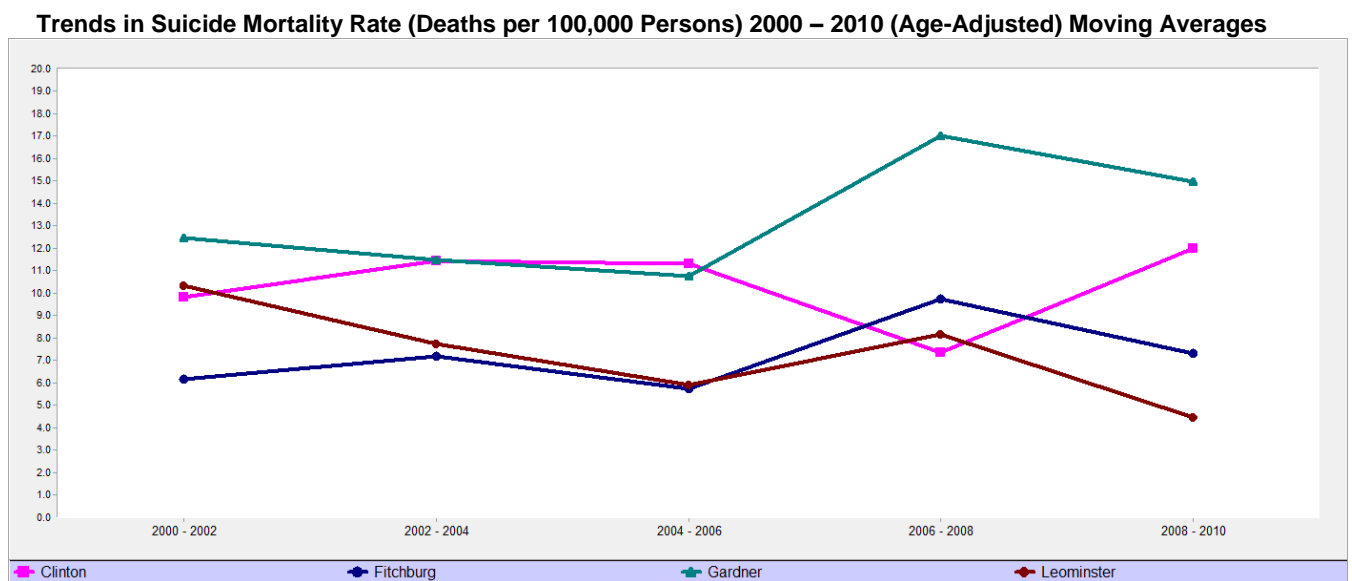


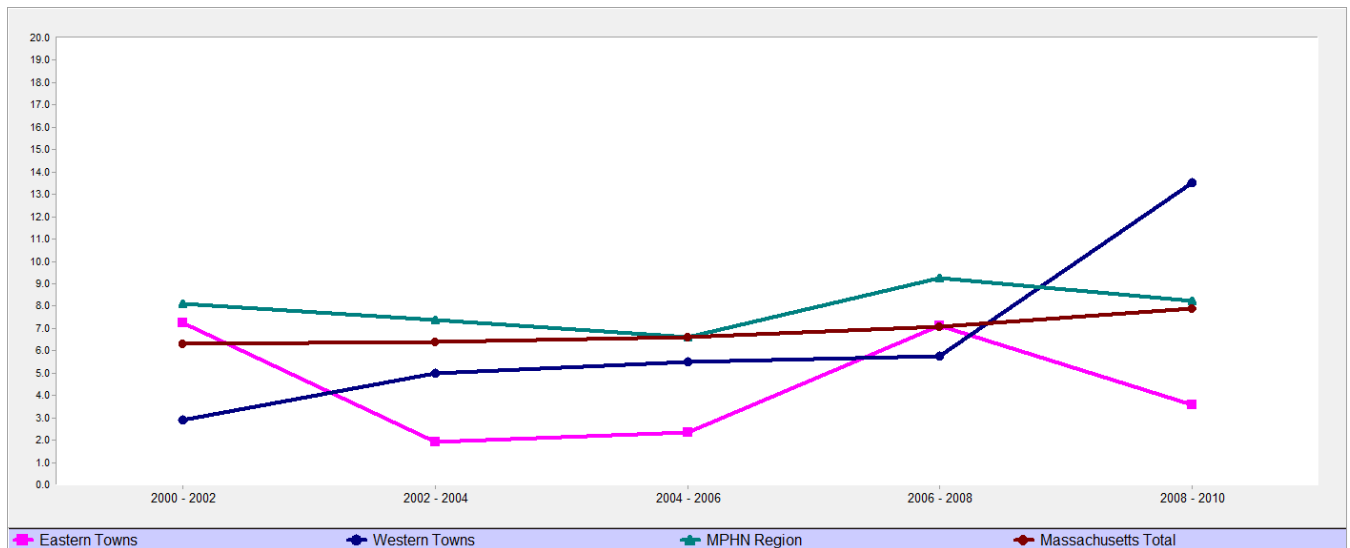
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)
 Healthy People 2010 Goal = 4.8 per 100,000
 Healthy People 2020 Goal = 10.2 per 100,000

In Fitchburg, Gardner, Templeton and Westminster, the highest Suicide Mortality Rate was reported among those ages 40 – 59, while in Athol, Clinton, Leominster and Royalston, the highest Suicide Mortality Rate was reported among those ages 20 – 39. The highest rate Suicide Mortality Rate in the region was reported among those ages 20 – 39 in Royalston at 60.3. However, this was based on 1 suicide.

The highest age-specific Suicide Mortality Rate among 0 - 19 year olds was reported in Phillipston at 33, but, again, this was based on 1 suicide. As discussed previously, the highest age-specific Suicide Mortality Rate among those 60 and older was reported in Leominster at 9.2, followed by Fitchburg at 7.2.

Two charts are used below to track the trends between 2000 and 2010 of age-adjusted Suicide Mortality Rates in different reporting regions in the MPH service area and the State. These two charts are needed to provide a clear illustration. The first chart includes Clinton, Fitchburg, Gardner and Leominster while the second includes the Eastern Towns, Western Towns, MPH Region and the State.





Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within Massachusetts as a whole, the age-adjusted Suicide Mortality Rate rose steadily during this time period from 6.3 to 7.9, an increase of 25%. The MPH region experienced some ups and downs in its rates, but the overall trend was a slight increase from 8.1 to 8.2. All of the reporting regions also had ups and downs in their Suicide Mortality Rates during this decade.

The overall trend was up for most of the reporting regions, with the most dramatic increase in age-adjusted Suicide Mortality Rate reported in the Western Towns, with an increase from 5.8 in 2006 - 2008 to 13.6 in 2008 - 2010. Clinton also experienced a sharp increase in this time period from 7.4 to 12. Gardner experienced a sharp increase from 10.8 in 2004 – 2006 to 17 in 2006 – 2008, but then dropped down slightly in 2008 – 2010 to 15. Despite this drop, however, Gardner did report the highest Suicide Mortality Rate in the region in 2008 – 2010. Fitchburg’s trend was similar to Gardner’s with a spike to 9.7 in 2006 – 2008 and then a drop off to 7.3 in 2008 – 2010.

It is also interesting to note that 3 of the reporting regions, Clinton, the Western Towns and Massachusetts, reported their highest age-adjusted Suicide Mortality Rates of this decade in the 2008 – 2010 time period, while Fitchburg, Gardner, Leominster, the Eastern Towns and the MPH region as a whole experienced their highest age-adjusted Suicide Mortality Rates of this decade in the 2006 – 2008 time period.

Consistent with the quantitative data presented in this section, suicide was identified among Focus Groups participants and Key Informant Interviewees as an issue in the area. Participants in 8 of the 13 Focus Groups talked about suicide being a big problem. Key Informant interviews revealed that suicide has had a recent (within the last 1-2 years) impact in every MPH community.

“One suicide is too much.”

“Been to more funerals for suicide than anything else.”

“...it happens in spurts. I’ve noticed generations of people in the surrounding area having a problem with coping with something. Like a mother commits suicide, then the son commits suicide and it keeps going.”

“One death affects many people. There is a negative impact on survivors and it ‘darkens the community’.”

“Bullying,” “depression,” “substance abuse,” “mental illness,” and “finances” were often mentioned as factors that can contribute to suicide.

Although many were aware of resources in schools for students, fewer seemed aware of resources for adults. There also seemed to be an overall acknowledgement of lack of information or even conversations around this topic.

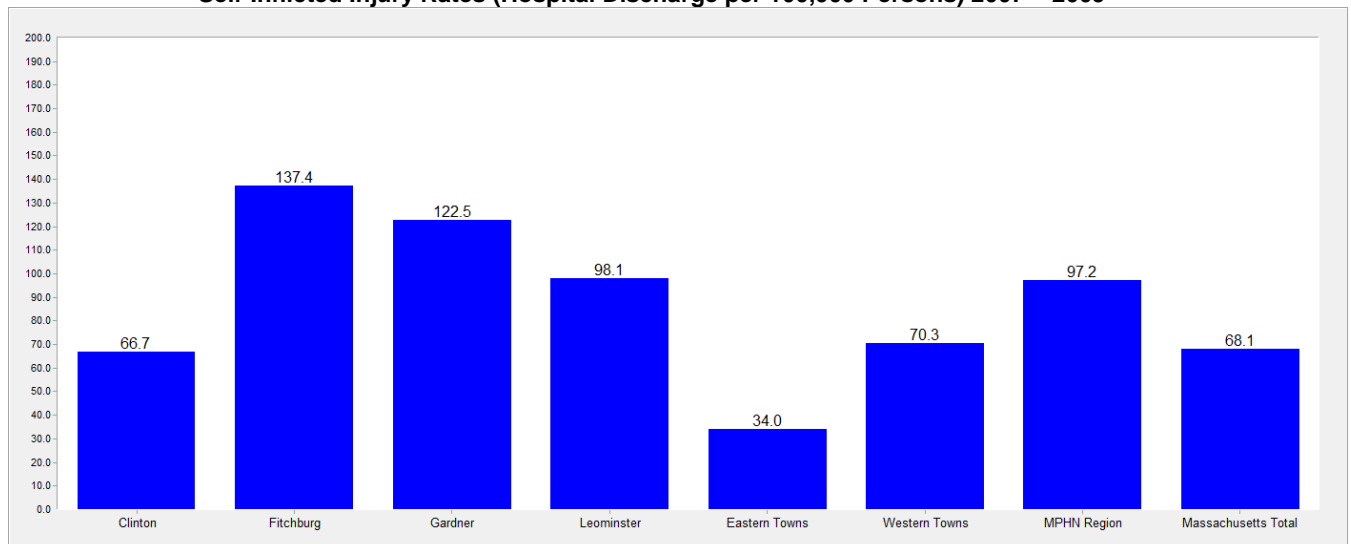
“Suicide has a stigma attached so not many talk about it.”

“Back to taboo.”

Self-Inflicted Injuries

Self-inflicted injuries are those judged by hospital staff to be an intentional effort to hurt or kill oneself. This excludes unintentional overdoses of either prescription or illegal drugs. In Massachusetts there were 13,310 hospital discharges for self-inflicted injuries in the 2007 – 2009 timeframe, for a crude rate of 68.1 per 100,000. Within the MPH region, there were 462 hospital discharges for self-inflicted injuries for a crude rate of 97.2, a rate 1.4 times that of the Commonwealth overall.

Self-Inflicted Injury Rates (Hospital Discharge per 100,000 Persons) 2007 – 2009



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Several of the reporting regions in the MPH service area had self-inflicted injury rates higher than the State during this time period. Fitchburg had the highest rate at 137.4 (double that of the Commonwealth), followed by the Gardner at 122.5, Leominster at 98.1 and the Western Towns at 70.3. The lowest self-inflicted injury rate was reported in the Eastern Towns at 34, followed by Clinton at 66.7.

Within Massachusetts the self-inflicted injury rate varied among racial /ethnic group in the 2007-2009 time period, with the highest rate reported among Black, non-Hispanics at 78.1, followed by Hispanics at 76, White, non-Hispanics at 65.9 and Asians at 18. Within the MPH region, the highest rate was reported among White, non-Hispanics at 94, followed by Black, non-Hispanics at 72.1 and Hispanics at 69. The number for Asians was suppressed.

OVERWEIGHT/OBESITY

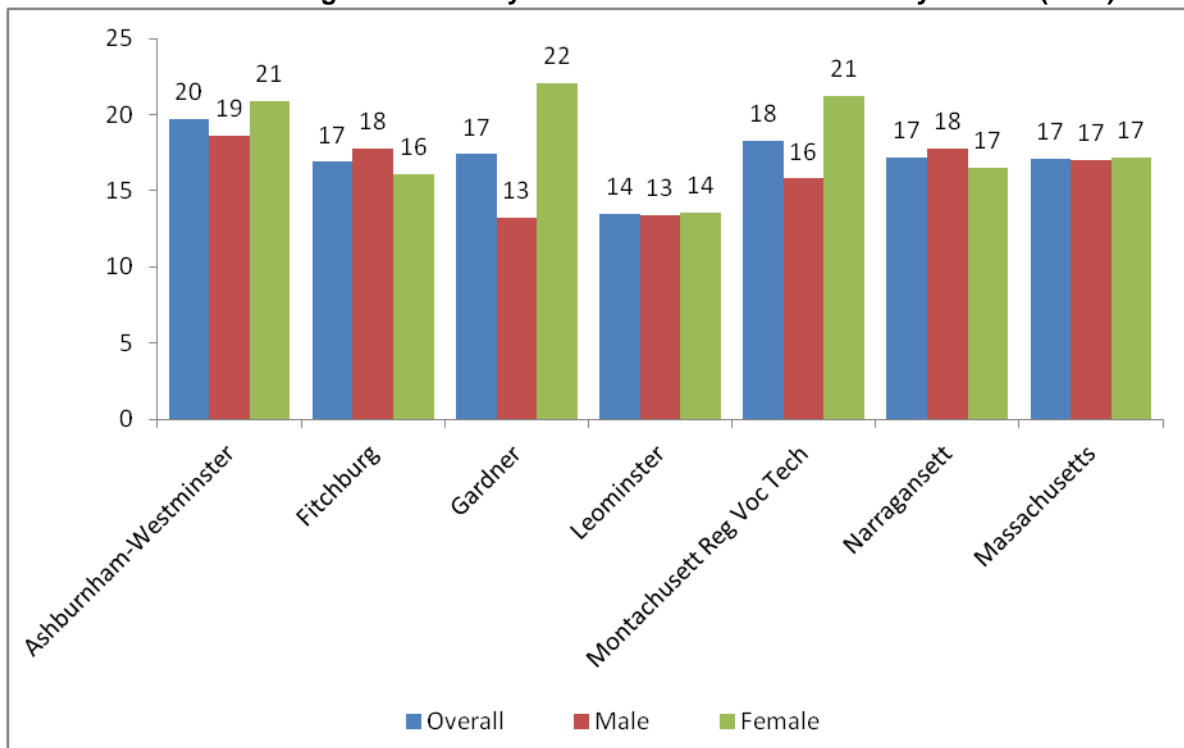
Child and Youth Overweight/Obesity

The majority of the following data is sourced from the “2010 School Health Services Report: 2010 Essential School Health Services Data” report available in MassCHIP Instant Topics under the heading of Adolescent Health. Please note this report did not include data for the Athol-Royalston Regional, Clinton and Wachusett Regional School Districts. Raw data entry reports were subsequently obtained for Athol-Royalston and Clinton, but for a different time period of school year 2012-2013. Because this data is for a different time period and did not go through the standard process developed by the Massachusetts Department of Public Health, it is presented separately. It is also of note that the percentages reported here for Athol-Royalston and Clinton were calculated using the number of students screened as the denominator and that students whose parents “opted-out” of BMI screening, meaning that a parent requested that the child not have BMI screening, were excluded. To determine the weight status of a student, his/her Body Mass Index (BMI) is determined and compared to the percentiles for the student’s age on the “CDC BMI for Age Growth Chart”. A student is considered obese if his/her BMI for age percentile is equal to or greater than the 95th percentile. A student is considered to be overweight if his/her BMI for age percentiles is greater than or equal to the 85th percentile but less than the 95th percentile. Students from 4 different grade levels were assessed: first, fourth, seventh and tenth.

Overweight

Within Massachusetts, 17% of the students in public school districts were considered to be overweight. Most of the school districts within the MPH had overweight percentages higher than or equal to that of the State. The school district with the highest overall percent of overweight students was Ashburnham-Westminster Regional at 20%, followed by Montachusett Regional Vocational Technical School at 18%, both higher than that of the State. The school district with the lowest overall percent of overweight students was Leominster at 14%, the only school district in the MPH region to have an overweight rate lower than that of the State.

Percent of Overweight Students by School District – Overall and by Gender (2010)



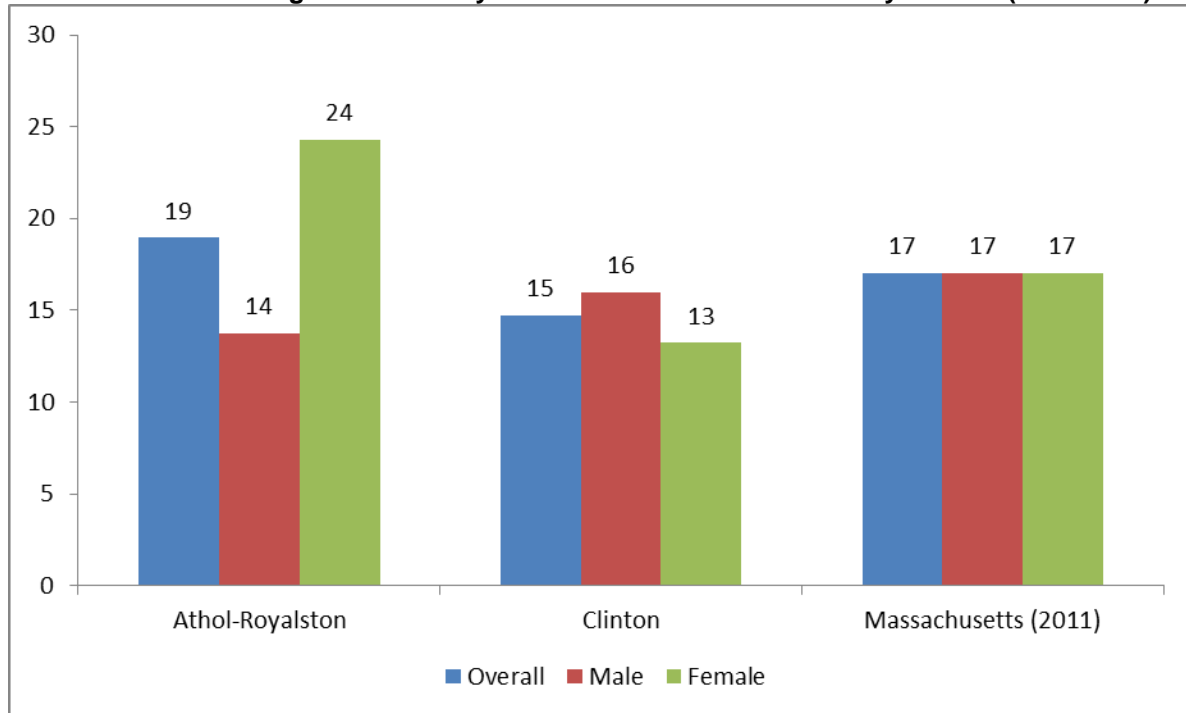
Source: MassCHIP, Instant Topics, Adolescent Health, 2010 School Health Services Report from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (http://www.mass.gov/eohhs/researcher/community-health/masschip/topics/adolescent-health/2010-school-health-services-reports.html#school_districts)

In the State the overweight percentages for males and females were equal at 17%. In Fitchburg and in Narragansett Regional, there were slightly higher percentages of overweight males than females. The school district with the highest percent of overweight males was Ashburnham-Westminster Regional at 19%, followed by Fitchburg and Narragansett, both at 18%. The school districts with the lowest percentages of overweight male students were Gardner and Leominster, both at 13%, and Montachusett Regional Vocational Technical at 16%, all lower than the 17% reported by the State.

In four of the school districts, there were higher percentages of overweight females than males. The school district with the highest percent of overweight female students was Gardner at 22%, followed by Montachusett Regional Vocational Technical School and Ashburnham-Westminster Regional, both at 21%. The school district with the lowest overall percent of overweight female students was Leominster at 14%, followed by Fitchburg at 16%, both lower than the 17% reported by the State.

The Athol-Royalston Regional School District had an overall percentage of overweight students of 19%, while the Clinton School District had an overall percentage of overweight students at 15%. Athol-Royalston had a much higher percentage of overweight females (24%) than overweight males (14%). Clinton had a higher percentage of overweight males (16%) than overweight females (13%). Because of the time frame and data source differences described above, it is difficult to compare these school districts to the others reported here.

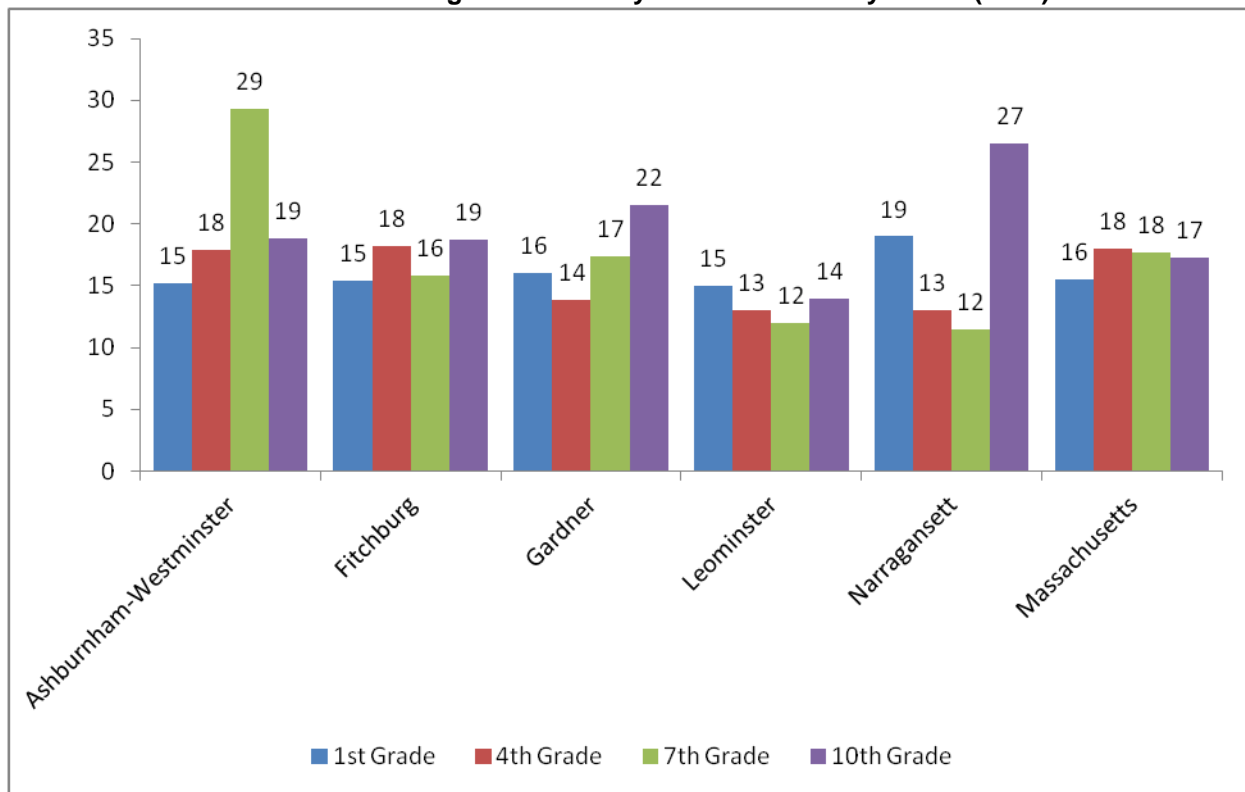
Percent of Overweight Students by School District – Overall and by Gender (2012-2013)



Sources: Athol-Royalston Regional School District, Clinton School District & MassCHIP

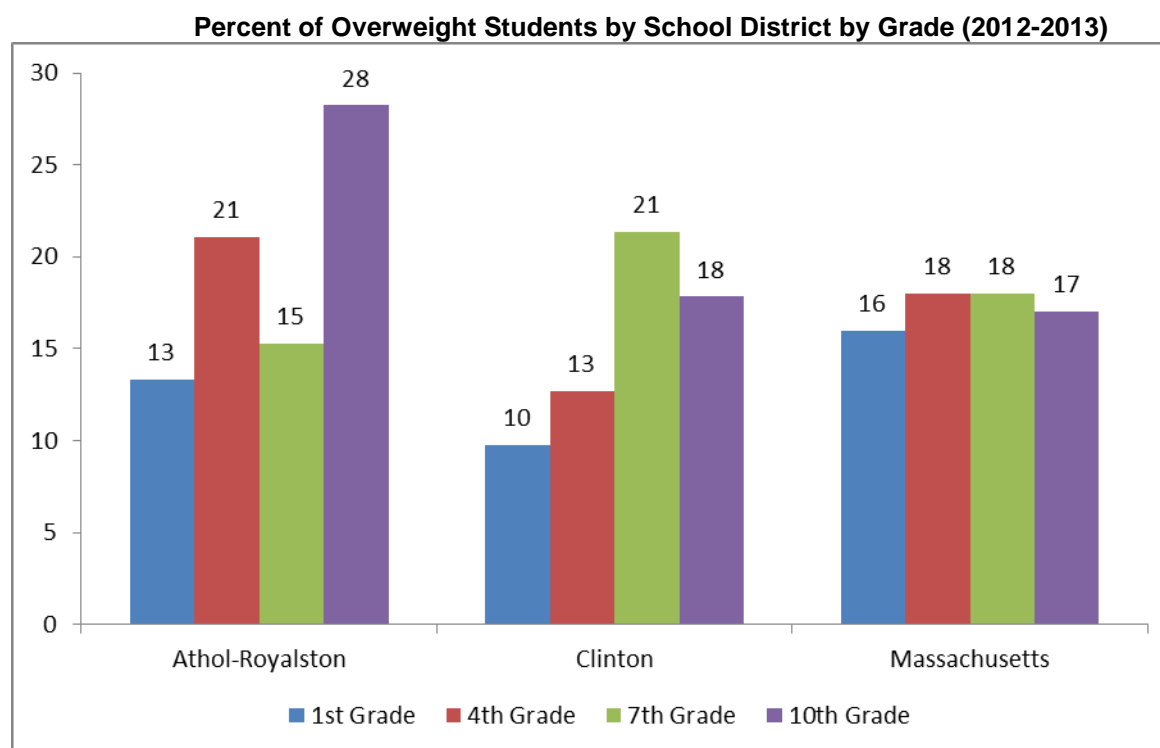
Within Massachusetts, the overweight rate was lowest for first graders at 16%, increased to 18% for both fourth graders and seventh graders, then decreased to 17% for tenth graders. Within the school districts in the MPH region, the highest percentage of overweight students was reported for seventh graders in Ashburnham-Westminster Regional at 29%, followed by tenth graders in Narragansett Regional at 27% and tenth graders in Gardner at 22%. The lowest percentages of overweight students were reported for seventh graders at Narragansett Regional and Leominster, both at 12% and for fourth graders at these same two school districts at 13%.

Percent of Overweight Students by School District by Grade (2010)



Source: MassCHIP, Instant Topics, Adolescent Health, 2010 School Health Services Report from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (http://www.mass.gov/eohhs/researcher/community-health/masschip/topics/adolescent-health/2010-school-health-services-reports.html#school_districts)

Within the Athol-Royalston Regional School District, the highest percentage of overweight students was reported among tenth graders at 28%, followed by fourth graders at 21%, seventh graders at 15% and first graders at 13%. Within the Clinton School District the highest percentage of overweight students was reported among seventh graders at 21%, followed by tenth graders at 18%, fourth graders at 13% and first graders at 10%. Because of the time frame and data source differences described above, it is difficult to compare these school districts to the others reported here.



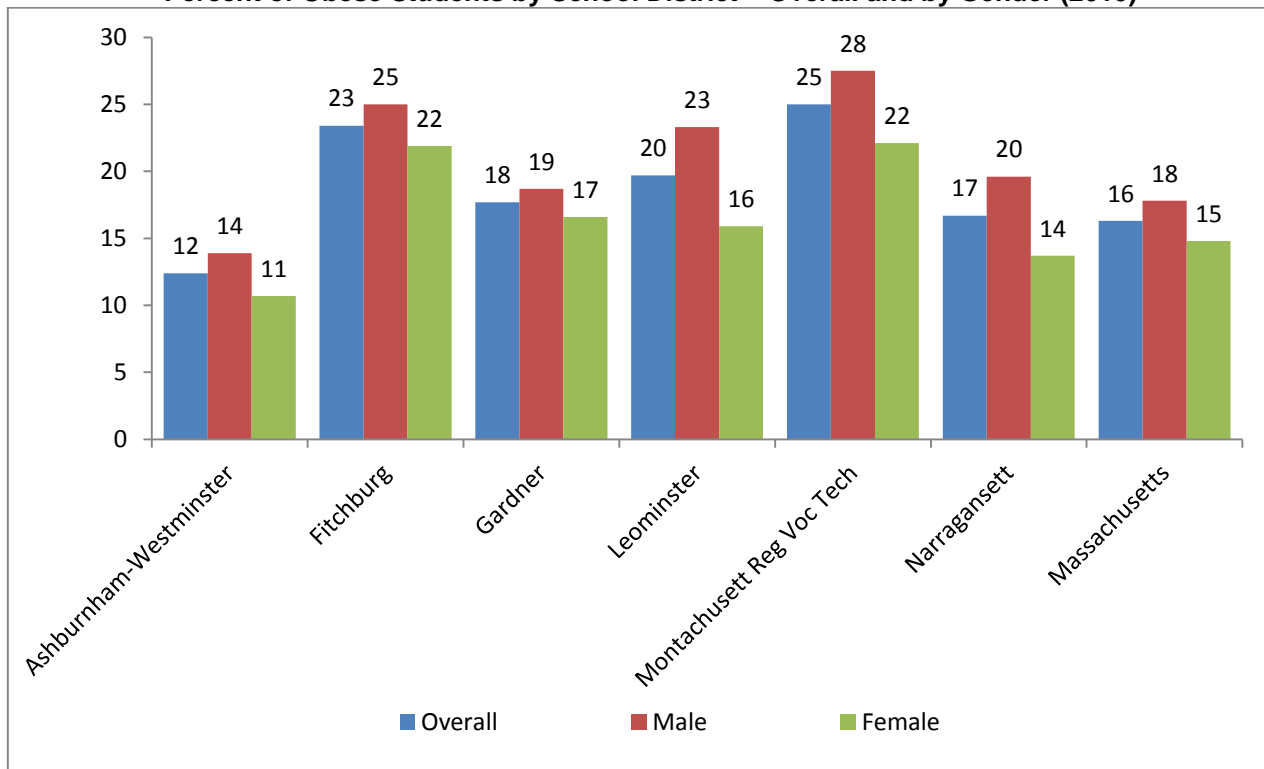
Sources: Athol-Royalston Regional School District, Clinton School District & MassCHIP

Obesity

Within Massachusetts, 16% of the students in public school districts were considered to be obese. Most of the school districts within the MPH N for which data is available had obesity percentages higher than that of the State. The school district with the highest overall percent of obese students was Montachusett Regional Vocational Technical School at 25%, followed by Fitchburg at 23% and Leominster at 20%. The school district with the lowest overall percent of obese students was Ashburnham-Westminster Regional at 12%, the only school district in the MPH N region to have an obesity rate lower than the State.

In the State and all of the school districts reported here, there was a higher percentage of obesity among males than females. Within Massachusetts, 18% of the male students in public school districts were considered to be obese. Most of the school districts within the MPH N for which data is available have male student obesity percentages higher than that of the State. The school district with the highest overall percent of obese male students was Montachusett Regional Vocational Technical School at 28%, followed by Fitchburg at 25% and Leominster at 23%. The school district with the lowest overall percent of obese male students was Ashburnham-Westminster Regional at 14%, the only school district in the MPH N region to have a male obesity rate lower than the State.

Percent of Obese Students by School District – Overall and by Gender (2010)



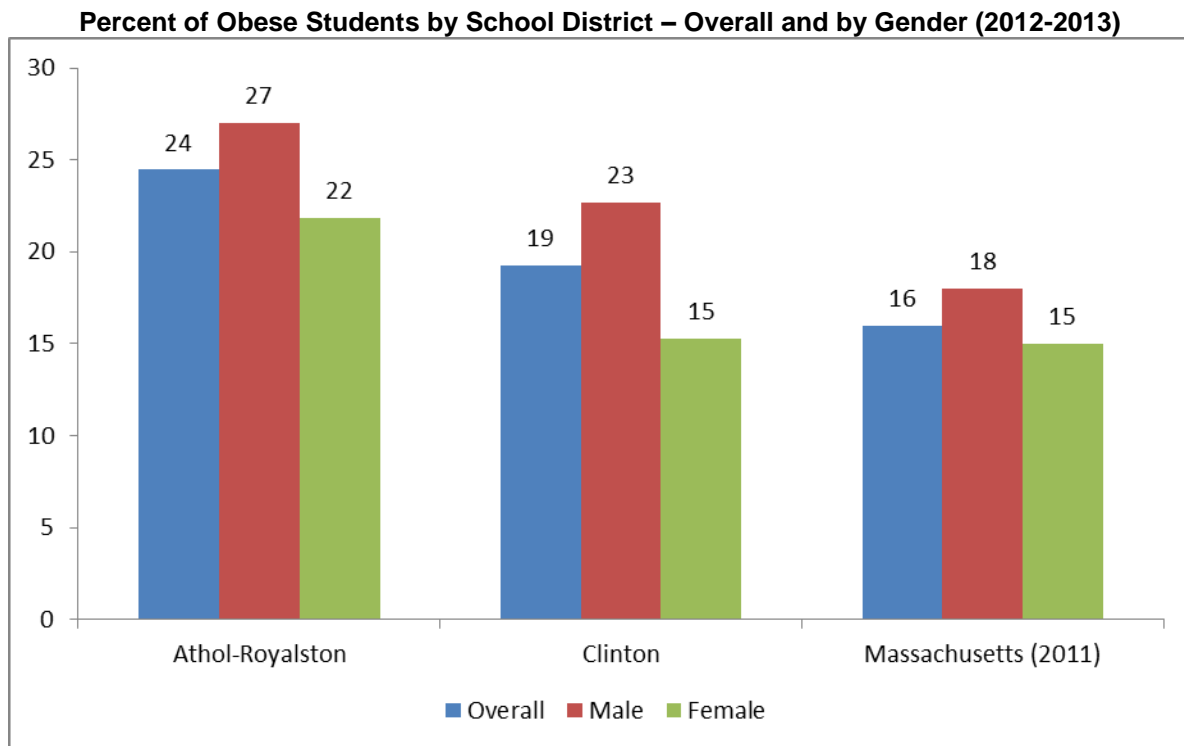
Source: MassCHIP, Instant Topics, Adolescent Health, 2010 School Health Services Report from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (http://www.mass.gov/eohhs/researcher/community-health/masschip/topics/adolescent-health/2010-school-health-services-reports.html#school_districts)

Healthy People 2010 Goal = 5.0% of children ages 6 - 19

Healthy People 2020 Goal = 14.5% of children ages 2 - 19

15% of the female students in public school districts in Massachusetts were considered to be obese. Many of the school districts within the MPH Network have female student obesity percentages higher than that of the State. The school districts with the highest overall percent of obese female students were Montachusett Regional Vocational Technical School and Fitchburg, both at 22%, followed by Gardner at 17% and Leominster at 16%. The school districts with the lowest overall percentages of obese female students were Ashburnham-Westminster Regional at 11% and Narragansett Regional at 14%, both of which were lower than that of the State.

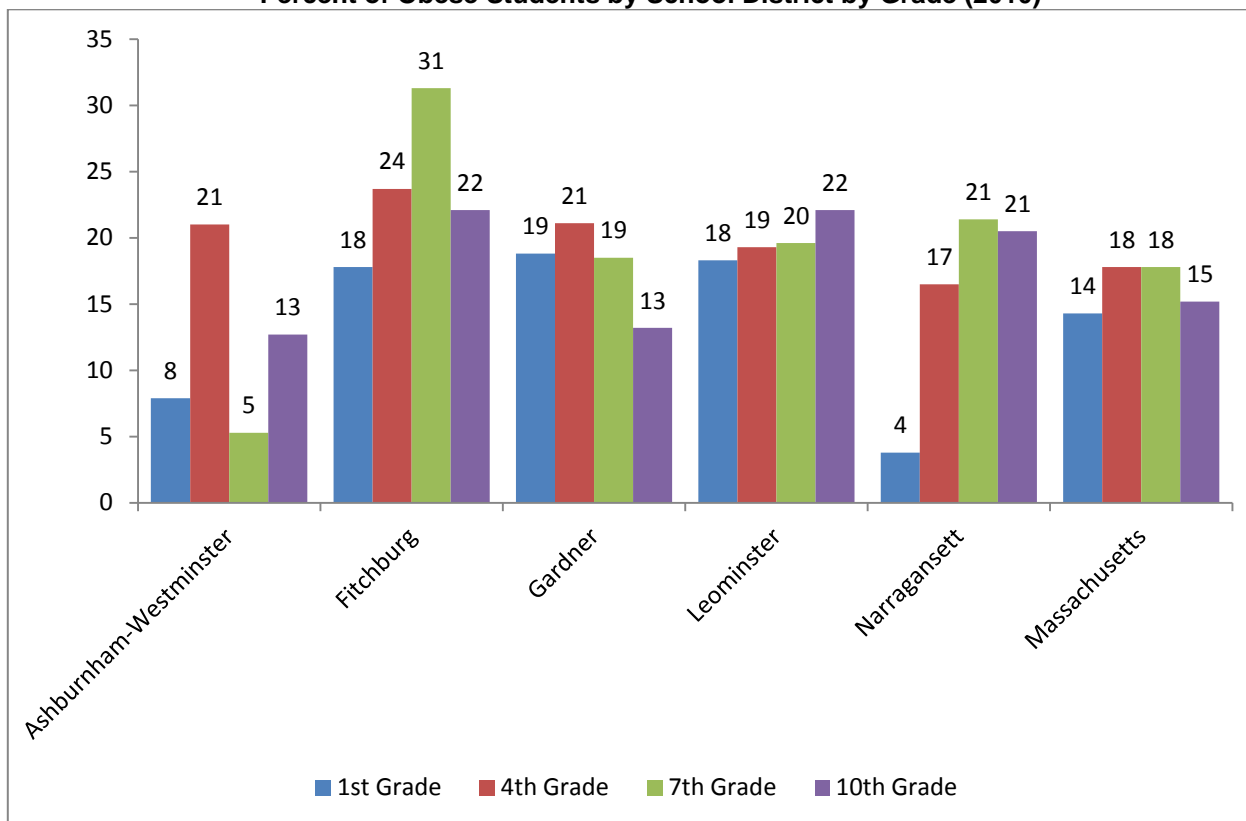
The Athol-Royalston Regional School District had a high overall percentage of obese students at 24%, while the Clinton School District had an overall percentage of obese students at 19%. Both Athol-Royalston and Clinton had higher percentages of obese males than obese females. Because of the time frame and data source differences described above, it is difficult to compare these school districts to the others reported here. It should also be noted that Clinton reported zero obese females in Grade 7, which would be a considerable statistical outlier and therefore requires careful consideration and interpretation of the data for obesity figures in Clinton.



Sources: Athol-Royalston Regional School District, Clinton School District & MassCHIP

Within Massachusetts, the obesity rate was lowest for first graders at 14%, increased to 18% for both fourth graders and seventh graders, then decreased to 15% for tenth graders. Within the school districts in the MPH region, the highest percentage of obese students was reported for seventh graders in Fitchburg at 31%, followed by fourth graders in Fitchburg at 24% and tenth graders in Fitchburg and Leominster, both at 22%. The lowest percentages of obese students were reported for first graders at Narragansett Regional at 4%, seventh graders at Ashburnham-Westminster Regional at 5% and first graders at Ashburnham-Westminster Regional at 8%. In all of the school districts in the region, except Gardner and Ashburnham-Westminster Regional, the lowest percentage of obesity was reported for first graders. For Gardner, it was the tenth grader and for Ashburnham-Westminster, it was the seventh grade, with the lowest percent of obese students. Again, Montachusett Regional Vocational Technical School was excluded from the chart below showing obesity percentages by grade, since they only had students in one of the 4 grades studied, the 10th grade.

Percent of Obese Students by School District by Grade (2010)

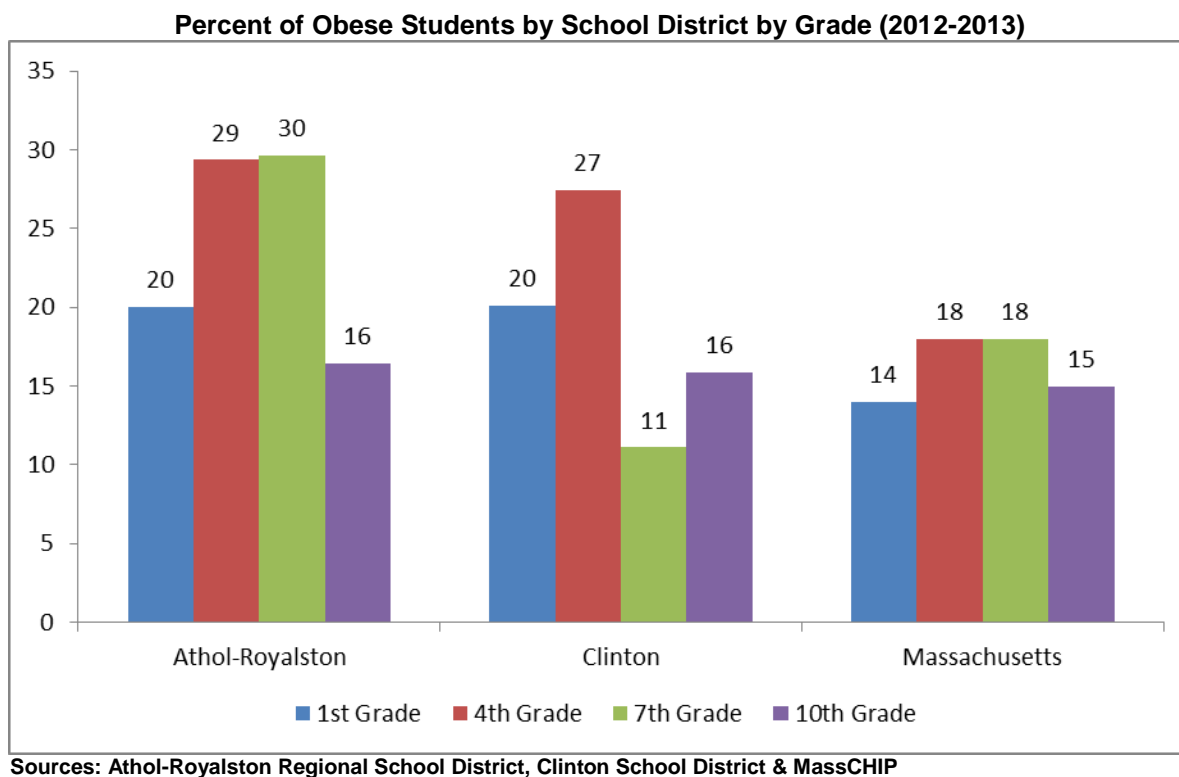


Source: MassCHIP, Instant Topics, Adolescent Health, 2010 School Health Services Report from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (http://www.mass.gov/eohhs/researcher/community-health/masschip/topics/adolescent-health/2010-school-health-services-reports.html#school_districts)

Healthy People 2010 Goal = 5.0% of children ages 6 - 19

Healthy People 2020 Goal = 14.5% of children ages 2 - 19

Within the Athol-Royalston Regional School District, the highest percentage of obese students was reported among seventh graders at 30%, followed by fourth graders at 29%, first graders at 20% and tenth graders at 16%. Within the Clinton School District the highest percentage of obese students was reported among fourth graders at 27%, followed by first graders at 20%, tenth graders at 16% and seventh graders at 10%. As described above, it should be noted that Clinton reported zero obese females in Grade 7, which would be a considerable statistical outlier and therefore requires careful consideration and interpretation of the data for obesity figures in Clinton. Additionally, because of the time frame and data source differences described above, it is difficult to compare these school districts to the others reported here.



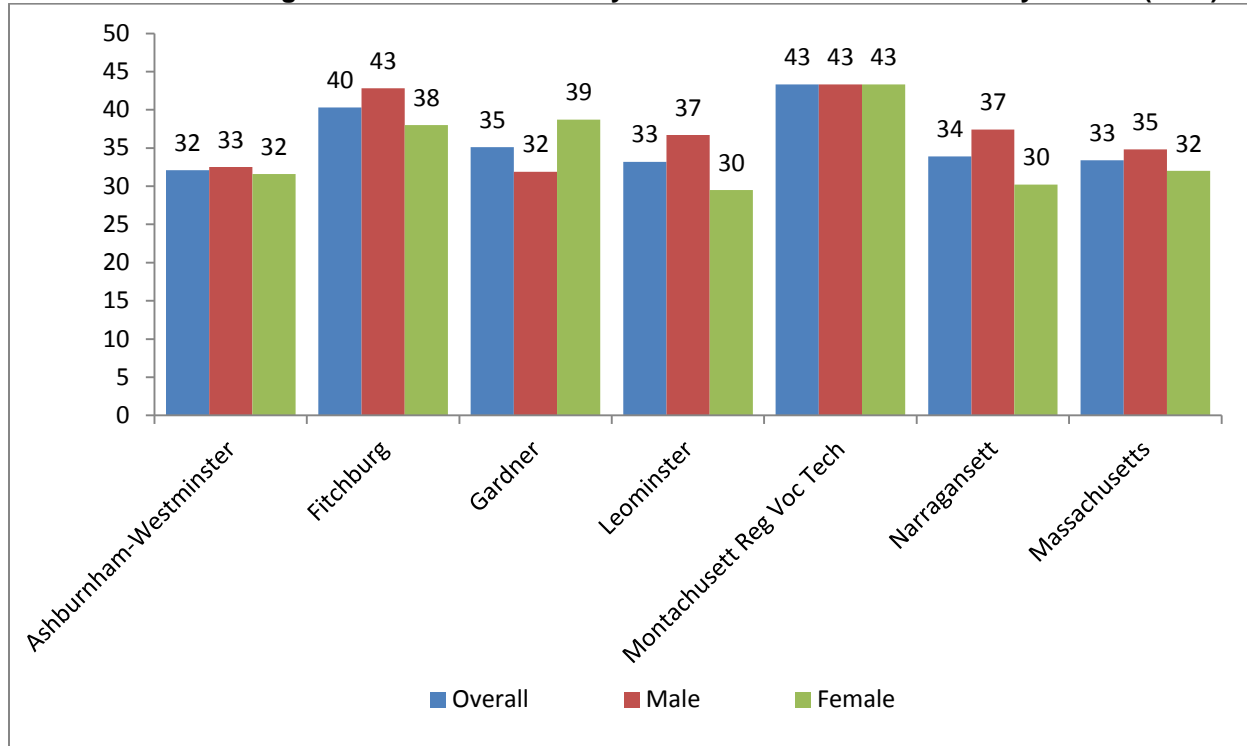
Overweight and Obesity Combined

A more complete picture emerges when the percentages of students who are obese are combined with those who are overweight. Within Massachusetts, 33% of the students in public school districts were considered to be overweight or obese. Some of the school districts within the MPH N had overweight or obesity percentages higher than that of the State. The school district with the highest overall percent of overweight and obese students was Montachusett Regional Vocational Technical School at 43%, followed by Fitchburg at 40% and Gardner at 35%. The school district with the lowest overall percent of overweight and obese students was Ashburnham-Westminster Regional at 32%, the only school district in the MPH N region to have a combined overweight and obesity rate lower than the State.

In the State and in most of the school districts discussed here, there was a higher percentage of overweight and obesity among males than females. The exceptions were Gardner, which had a higher percentage of overweight and obese female students than male students, and Montachusett Regional Vocational Technical School where the rates for male and female students were equal. Within Massachusetts, 35% of the male students in public school districts were considered to be overweight or obese. Most of the school districts within the MPH N for which data is available had male student overweight and obesity percentages higher than that of the State. The school districts with the highest overall percent of overweight and obese male students were

Montachusett Regional Vocational Technical School and Fitchburg, both at 43%, followed by Leominster and Narragansett Regional, both at 37%. The school districts with the lowest overall percentages of overweight and obese male students were Gardner at 32% and Ashburnham-Westminster Regional at 33%, the only school districts in the MPH region to have a male overweight and obesity rate lower than the State.

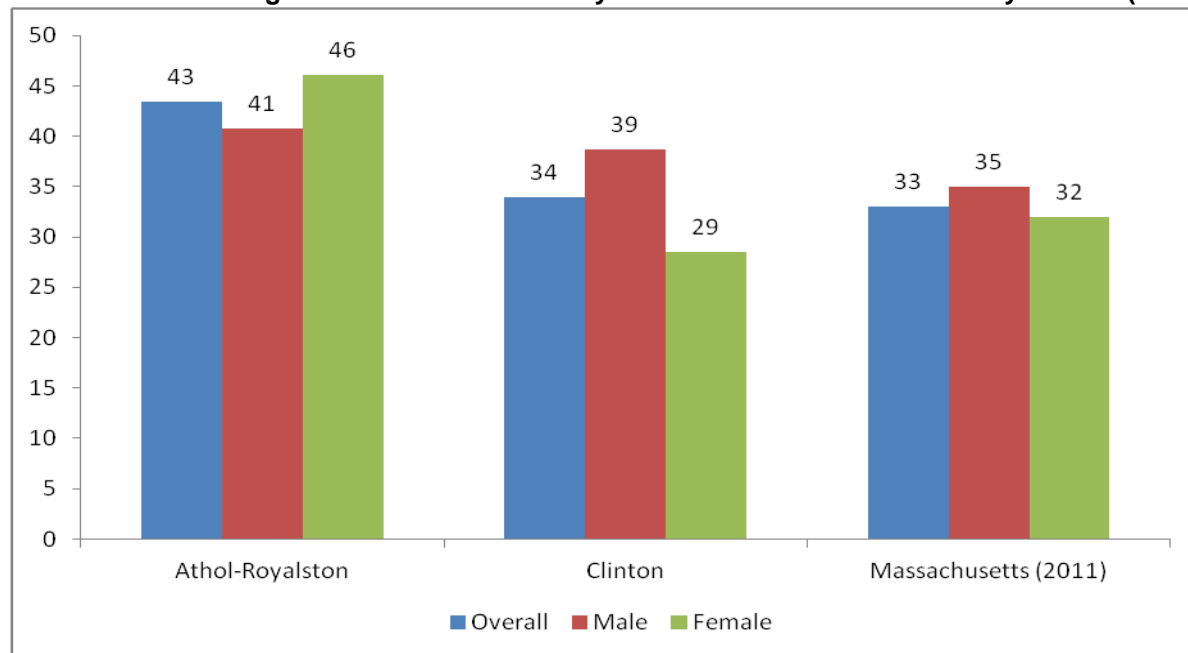
Percent of Overweight and Obese Students by School District – Overall and by Gender (2010)



Source: MassCHIP, Instant Topics, Adolescent Health, 2010 School Health Services Report from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (http://www.mass.gov/eohhs/researcher/community-health/masschip/topics/adolescent-health/2010-school-health-services-reports.html#school_districts)

32% of the female students in public school districts in Massachusetts were considered to be overweight or obese. Some of the school districts within the MPH region had female student overweight and obesity percentages higher than that of the State. The school districts with the highest overall percent of overweight and obese female students were Montachusett Regional Vocational Technical School at 43%, followed by Gardner at 39% and Fitchburg at 38%. The school districts with the lowest overall percentages of overweight and obese female students were Narragansett Regional and Leominster both at 30%, a rate lower than that of the State.

Percent of Overweight and Obese Students by School District – Overall and by Gender (2012-2013)

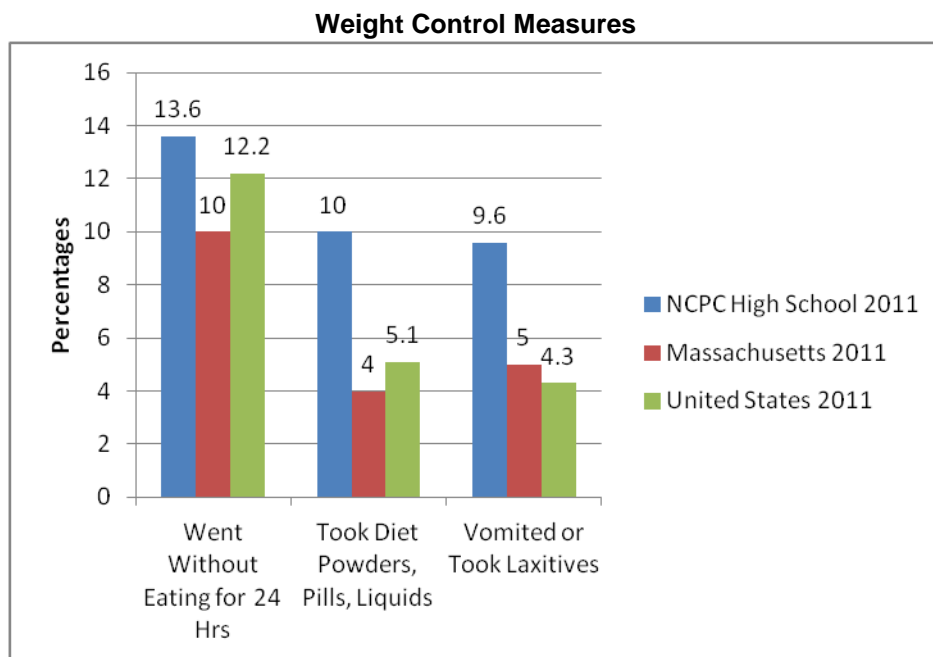


Sources: Athol-Royalston Regional School District, Clinton School District & MassCHIP

The Athol-Royalston Regional School District had a high overall percentage of overweight and obese students at 43%, while the Clinton School District had an overall percentage of overweight and obese students of 34%. Athol-Royalston had a higher percentage of overweight and obese females (46%) than overweight and obese males (42%). Clinton had a higher percentage of overweight and obese males (39%) than overweight and obese females (29%). However, as described above, Clinton reported zero obese females in Grade 7, which would be a considerable statistical outlier and therefore requires careful consideration and interpretation of the data for obesity figures in Clinton. Additionally, because of the time frame and data source differences described above, it is difficult to compare these school districts to the others reported here.

It is interesting to compare the data presented above with area youths' self-reports of issues related to overweight/obesity. Data collected through the *2011 Youth Risk Behavior Survey* and *Youth and Community Survey* show that 30.2% of area high school youth in North Central Massachusetts consider themselves to be "overweight". This percentage is relatively close to the overall percentage of youth whose Body Mass Index classified them as either "overweight" or "obese."

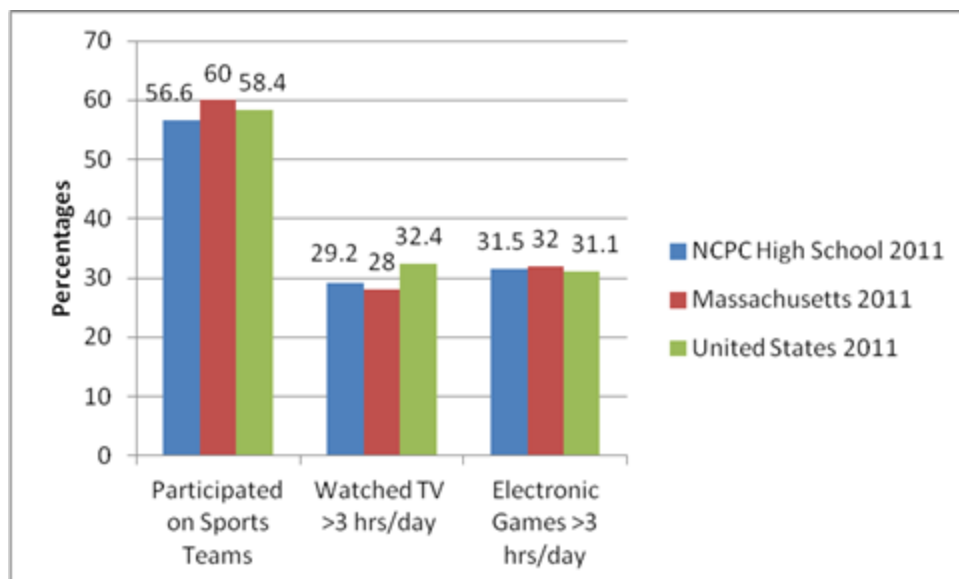
Almost half (43.5%) of area youth reported that they were trying to lose weight. Nearly sixty percent (59.5%) reported exercising and 38.8% reported eating fewer calories to lose weight or keep from gain weight. These numbers are consistent with those reported at the state and national levels. In contrast, MPHN area youth reported higher rates of "more drastic" measures to control their weight. Specifically, 13.6% reported not eating for 24 hours or more to control their weight versus 10% and 12.2% across the state and nation, respectively. Ten percent (10.0%) reported taking diet pills, powders or liquids to lose weight or keep from gaining weight versus 4.0% in Massachusetts and 5.1% in the United States. And, 9.6% reported vomiting or taking laxatives to control their weight versus 5% and 4.3% across the state and nation, respectively.



Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

With respect to physical activity, a key component to achieving and maintaining a healthy weight, area youth self-reported meeting recommended daily physical activity levels at a rate lower than their peers across the state and nation. Specifically, 37.3% of area youth reported being physically active for 60 minutes per day on 5 of the last 7 days whereas 43% of Massachusetts youth and 49.5% of youth in the United States reported a similar level of activity. Area youth (56.6%) reported participating in organized sports teams at a rate lower than their peers in Massachusetts (60%) and across the United States (58.4%). Area youth (29.2%) reported watching more television than other Massachusetts youth (28%) but less than youth across the nation (32.4%) and they (31.5%) reported playing electronic games less than their Massachusetts peers (32%) but more than their peers across the United States (31.1%).

Physical Activity



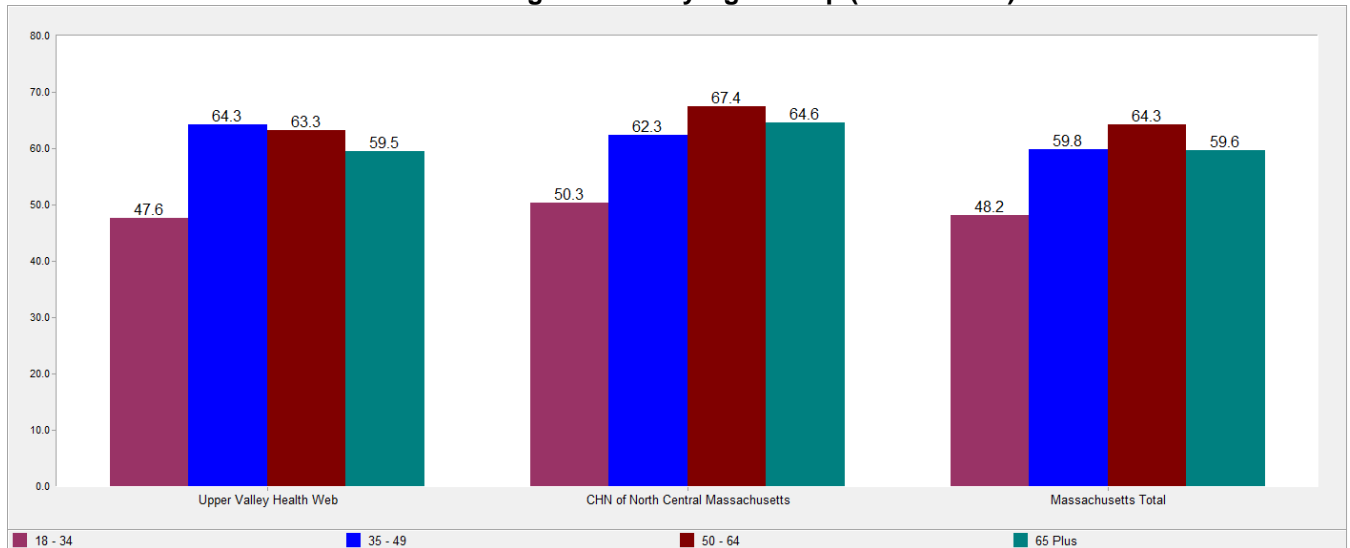
Source: LUK, Inc., with the permission of, and in collaboration with, participating school districts.

Adult Overweight

The following information related to overweight/obesity was sourced from the Behavioral Risk Factor Surveillance System (BRFSS) through MassCHIP. As mentioned previously, BRFSS data is not available individually for any of the communities or reporting regions within the MPH service area. The breakdown which most closely aligns with the MPH is at the Community Health Network Area (CHNA) level. The communities in the MPH region are part of two different CHNAs. Athol, Phillipston and Royalston are part of CHNA 2, the Upper Valley Health Web of Franklin County, making up 16.7% of the population of this CHNA. Clinton, Fitchburg, Gardner, Leominster, Princeton, Sterling, Templeton and Westminster are part of CHNA 9, the Community Health Network of North Central Massachusetts, making up 53.8% of the population in this CHNA. Data presented in this section represents respondents from CHNA 2 and CHNA 9.

Within Massachusetts, 57.7% of adult respondents to the Behavioral Risk Factor Surveillance System (BRFSS) survey during the 2005 – 2010 time period reported being overweight based on having a Body Mass Index (BMI) of greater than 25. Within both CHNA 2 and CHNA 9, this percentage was higher at 58.4% and 60.5%, respectively.

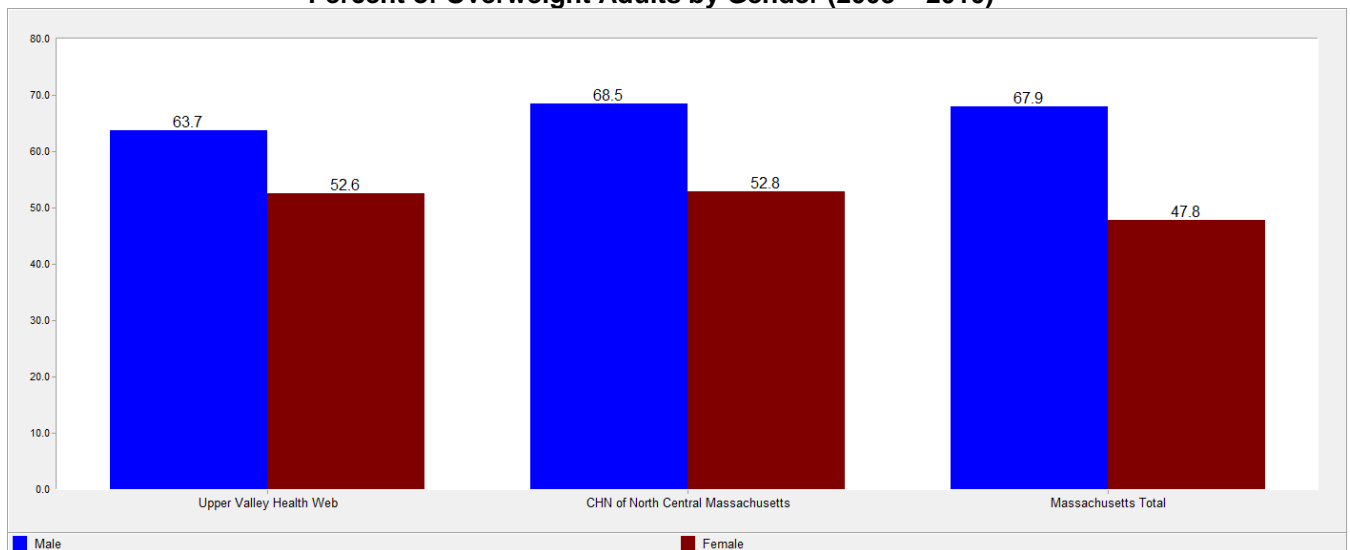
Percent of Overweight Adults by Age Group (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the percentage of respondents who reported being overweight rose steadily from 48.2% of those in the 18 – 34 age group, to 59.8% of those in the 35 – 49 age group and 64.3% of those in the 50 – 64 age group, before dropping off slightly to 59.6% of those in the 65 plus age group. Within CHNA 9, this same trend held true. However, for every age group, the percentage of overweight adults was higher in CHNA 9 than in the State. In CHNA 2, there was a smaller percentage of overweight adults in the 18 – 34 age group than in the State or in CHNA 9. However, there was a sharp increase in CHNA 2 in the overweight percentage in the 35 – 49 age group, to a rate of 64.3%, surpassing that of both the State and CHNA 9. The CHNA 2 overweight percentage then decreased for the 50 – 64 and 65 plus age groups.

Percent of Overweight Adults by Gender (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

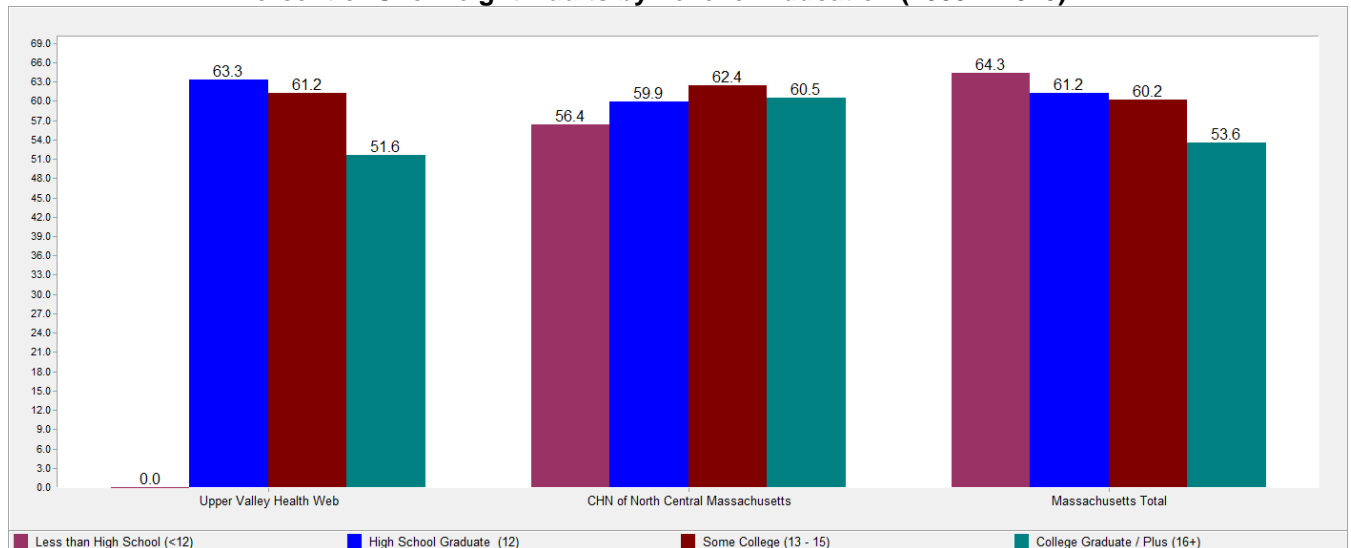
Within the State, CHNA 2 and CHNA 9, a larger percentage of adult men reported being overweight than adult women. CHNA 2 had a lower percentage of overweight men at 63.7% than did the State at 67.9%. However, CHNA 2 had a higher percentage of overweight women at 52.6% than did the State at 47.8%. CHNA 9 had higher percentages of both overweight men (68.5%) and overweight women (52.8%) than did the State or CHNA 2.

Within the Commonwealth as a whole, the highest percentage of overweight adults was reported among Black, non-Hispanics at 68.3%, followed by Hispanics at 64.2%, White, non-Hispanics at 57.1% and Asians at 38.6%. There were too few respondents by race/ethnicity in CHNA 2 and among, Black, non-Hispanics and Asians in CHNA 9 to provide meaningful data. However, higher percentages of White, non-Hispanics (59.9%) and Hispanics (65%) in CHNA 9 were overweight than were reported in the Commonwealth.

In the State as a whole, the higher the educational level, the less likely the adult was to be overweight. The highest percentage of overweight adults was 64.3% among those with less than a high school education. The rate decreased to 61.2% for high school graduates, 60.2% for those with some college and 53.6% for college graduates.

In CHNA 2, the percent of overweight adults among those with less than a high school education was suppressed. For high school graduates the overweight rate in CHNA 2 of 63.3% was higher than those of CHNA 9 at 59.9% and the State at 61.2%. From this high, the rates in CHNA 2 decreased as the educational level increased. Within CHNA 9 a different trend was seen, with rates increasing from a low of 56.4 among those with less than a high school education to 59.9% of those with a high school diploma and 62.4% of those with some college. It was only for college graduates that the overweight rate dropped slightly in CHNA 9 to 60.5%, a figure still much higher than that for college graduates in the State at 53.6% and in CHNA 2 at 51.6%.

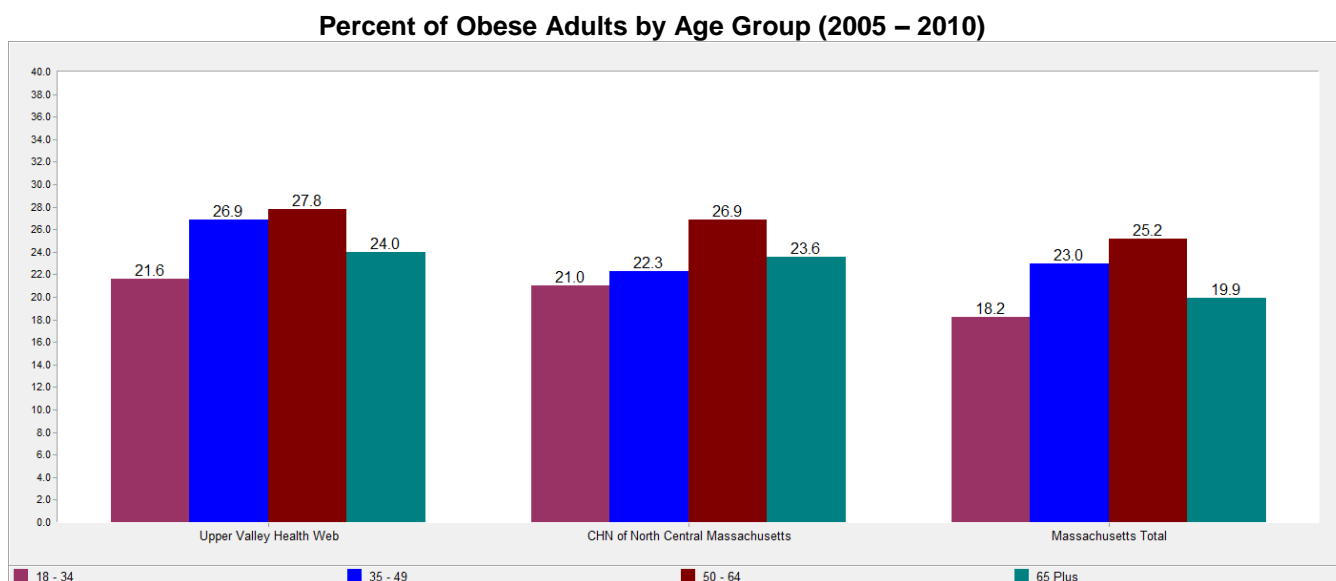
Percent of Overweight Adults by Level of Education (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Obesity

Obesity is defined as having a Body Mass Index (BMI) greater than 30. Within Massachusetts, 21.6% of adult respondents to the Behavioral Risk Factor Surveillance System (BRFSS) survey during the 2005 – 2010 time period reported being obese based on having a BMI of greater than 30. Within both CHNA 2 and CHNA 9, this percentage was higher at 25.1% and 23%, respectively.



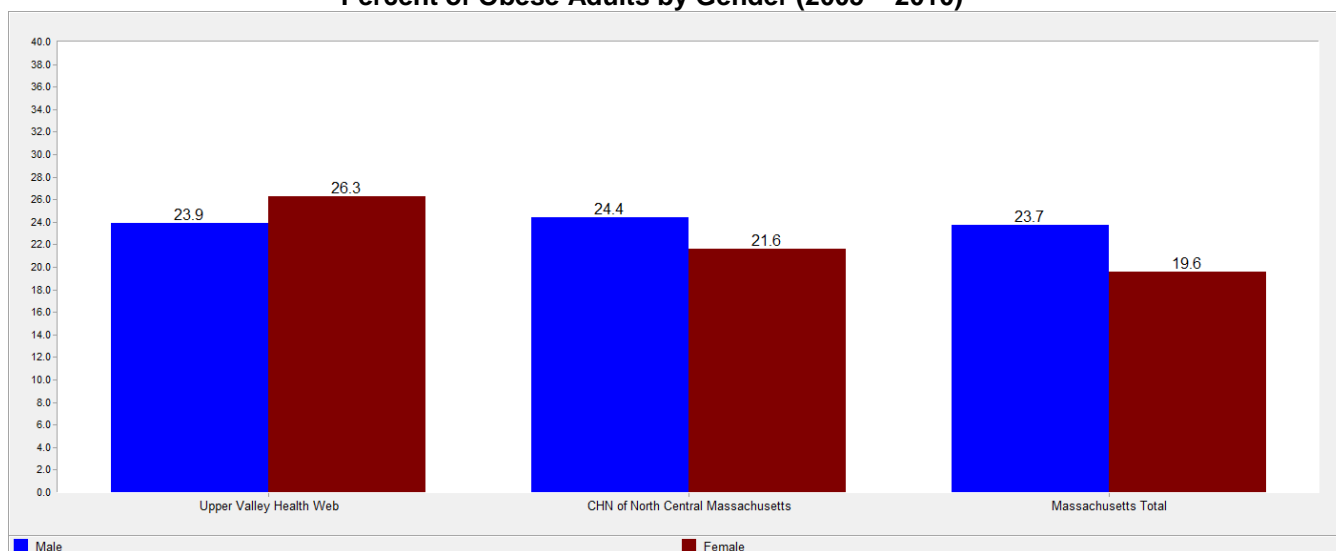
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 15.0% of adults 20 and older (age adjusted)

Healthy People 2020 Goal = 30.5% of adults 20 and older (age adjusted)

Within the Commonwealth, the percentage of respondents who reported being obese rose steadily from 18.2% of those in the 18 – 34 age group, to 23% of those in the 35 – 49 age group and 25.2% of those in the 50 – 64 age group, before dropping off somewhat to 19.9% of those in the 65 plus age group. Within CHNA 2 and CHNA 9, this same trend held true. However, for almost every age group in CHNA 2 and CHNA 9, the percentage of obese adults was higher than that reported for the same age group in the State. The only exception was the 35 – 49 age group in CHNA 9. The highest percentage of obese adults was reported in the 50 – 64 age group, with 27.8% of CHNA 2 residents, 26.9% of CHNA 9 residents and 25.2% of the Commonwealth's residents in this age group being obese.

Percent of Obese Adults by Gender (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 15.0% of adults 20 and older (age adjusted)

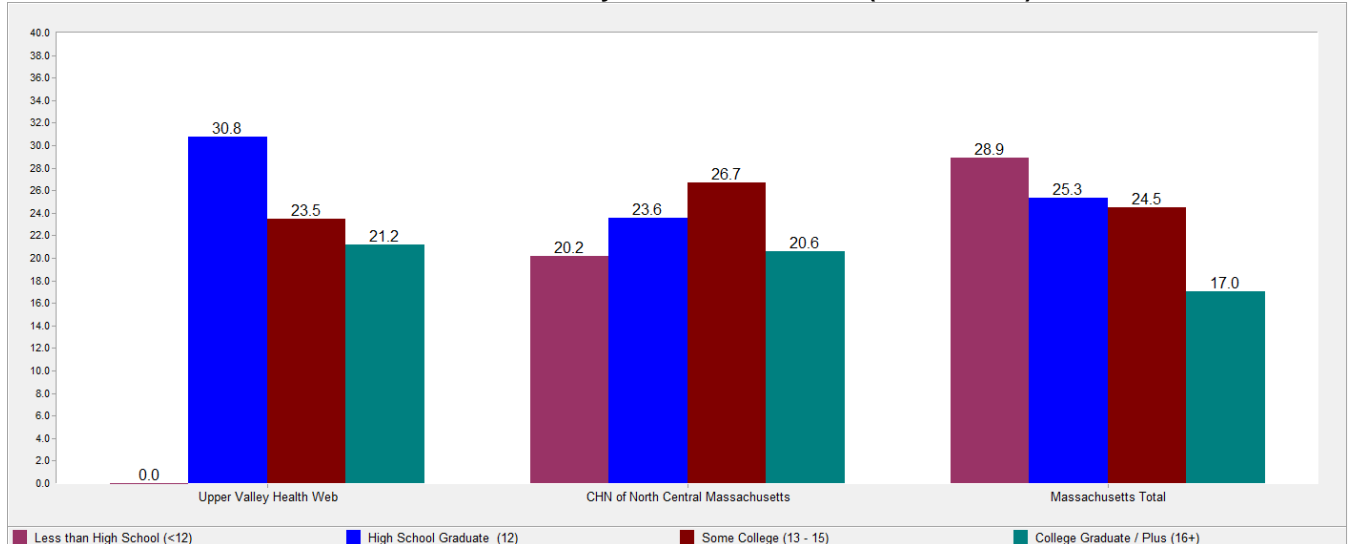
Healthy People 2020 Goal = 30.5% of adults 20 and older (age adjusted)

Within the State and CHNA 9, a larger percentage of adult men reported being obese than adult women. In CHNA 2, however, a higher percentage of women reported being obese than men. In both CHNA 2 and CHNA 9 a slightly higher percentage of men were obese than were reported in the State overall. The percentage of obese women was higher in both CHNA 2 and CHNA 9 than in the State, with the obesity rate among women in CHNA 2 at 26.3% being more than 1.3 times the percentage seen in the State.

Within the Commonwealth as a whole, the highest percentage of obese adults was reported among Black, non-Hispanics at 31.1%, followed by Hispanics at 27.8%, White, non-Hispanics at 21.1% and Asians at 6.7%. There were too few respondents by race/ethnicity in CHNA 2 and among, Black, non-Hispanics and Asians in CHNA 9 to provide meaningful data. However, higher percentages of White, non-Hispanics (23%) and Hispanics (31.1%) in CHNA 9 were obese than were reported in the Commonwealth.

In the State as a whole, the higher the educational level, the less likely the adult was to be obese. The highest percentage of obese adults was 28.9% among those with less than a high school education. The rate decreased to 25.3% for high school graduates, 24.5% for those with some college and 17% for college graduates.

Percent of Obese Adults by Level of Education (2003 – 2008)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 15.0% of adults 20 and older (age adjusted)

Healthy People 2020 Goal = 30.5% of adults 20 and older (age adjusted)

In CHNA 2, the percent of obese adults among those with less than a high school education was suppressed. For high school graduates the obesity rate in CHNA 2 of 30.8% was higher than those of CHNA 9 at 23.6% and the State at 25.3%. From this high, the rates in CHNA 2 decreased as the educational level increased. Within CHNA 9 a different trend was seen, with rates increasing from a low of 20.2% among those with less than a high school education to 23.6% of those with a high school diploma and 26.7% of those with some college. It was only for college graduates that the obesity rate dropped in CHNA 9 to 20.6%, a figure higher than that for college graduates in the State at 17%.

Consistent with the quantitative data presented in this section, obesity was highlighted as a major concern among Focus Group participants, with 6 of 13 focus groups highlighting obesity or related conditions (e.g., lack of exercise) as a significant personal health issue and 10 of 13 focus groups highlighting it as a major community health issue. Specifically, access, both geographic and financial, to healthy food was a major concern mentioned by most groups.

“It is hard to find good, affordable food.”

“Fast food is cheaper.”

Also, the need to understand and address obesity in culturally appropriate ways was highlighted in almost all the groups.

There was consensus by all Key Informants on the importance of reducing the rates of people who are overweight or obese. Concerns were focused on children and youth in a general sense and the direct impact of being overweight and obese as adults (e.g., diabetes, high blood pressure, and other chronic diseases).

“We should focus on the children so they become healthy adults.”

There was also an awareness of the role of public health, schools, community organizations and local government in decreasing obesity through education and awareness as well as policy, systems, and environmental changes.

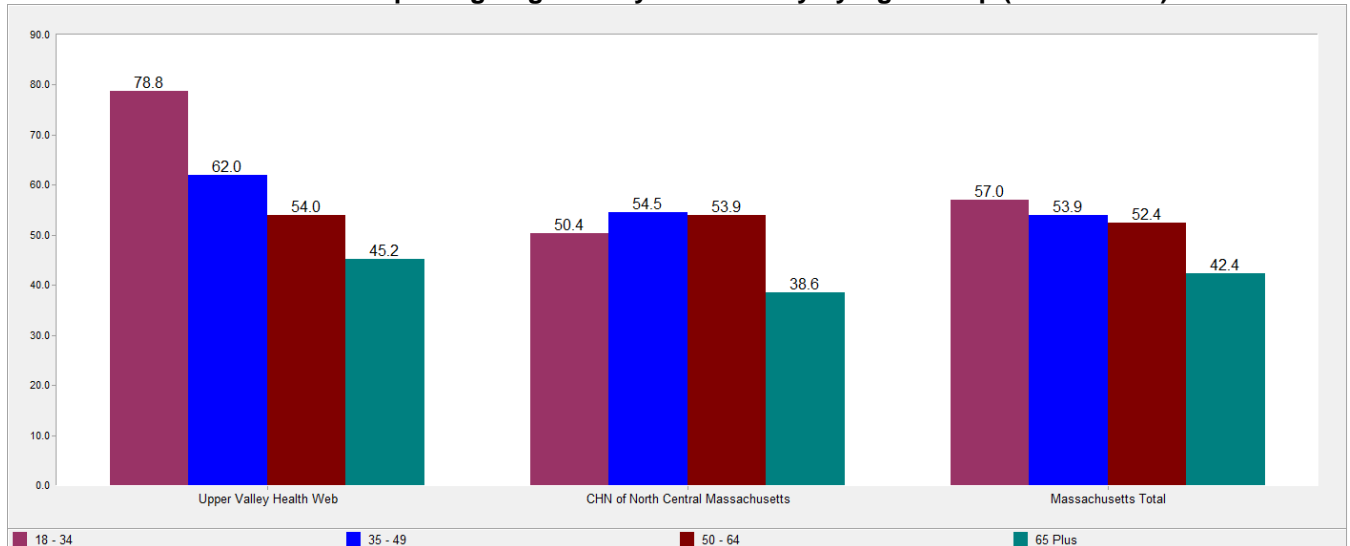
“[Provide] safe infrastructure to promote physical activity and assist with making healthy foods the easy choice.”

Physical Activity

Within Massachusetts, 52.3% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported having been involved in regular physical activity, defined as a 30 minute session 5 or more times per week. Within CHNA 2 this percentage was considerably higher at 62.3%, while in CHNA 9 it was slightly lower at 51.3%.

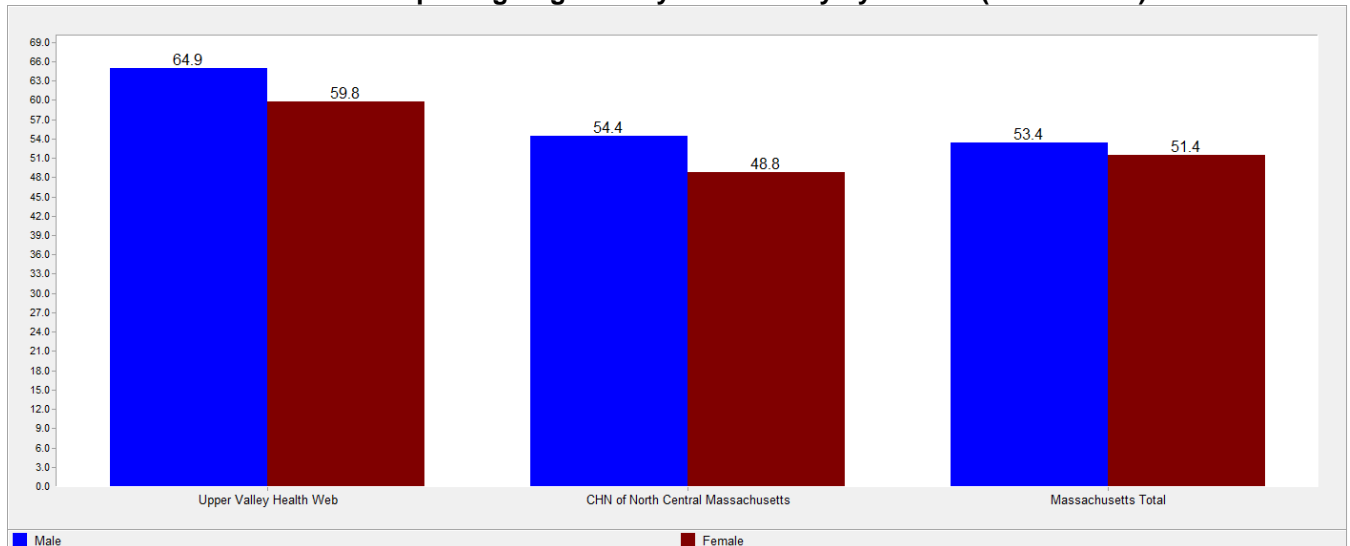
Within the Commonwealth, the percentage of respondents who reported being involved in regular physical activity fell steadily from 57% of those in the 18 – 34 age group, to 53.9% of those in the 35 – 49 age group, 52.4% of those in the 50 – 64 age group and 42.4% of those in the 65 plus age group. Within CHNA 2, this same trend held true. However, for every age group in CHNA 2, the percentage of adults involved in regular physical activity was higher than that reported for the same age group in the State. The difference was especially pronounced in the 18 – 34 age group in which 78.8% of CHNA 2 adults reported having regular physical activity, as compared with 57% of that age group in the State. However, in CHNA 9, only 50.4% of those in the 18 – 34 age group were involved in regular physical activity. This rate increased among those in the 35 – 49 age group, before decreasing to 53.9% in the 50 – 64 age group and again to a low of 38.6% of those 65 plus in CHNA 9.

Percent of Adults Reporting Regular Physical Activity by Age Group (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Percent of Adults Reporting Regular Physical Activity by Gender (2005 – 2010)

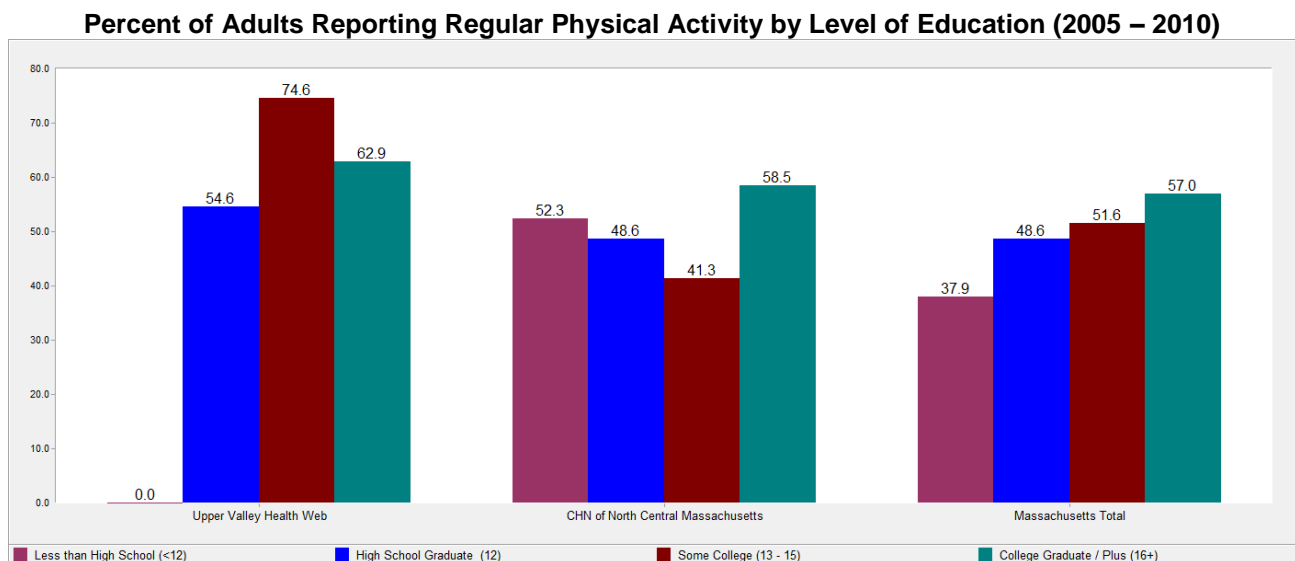


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the State, CHNA 2 and CHNA 9, a larger percentage of adult men reported having been involved in regular physical activity than adult women. In both CHNA 2 and CHNA 9 a higher percentage of men were involved in regular physical activity than were reported in the State overall, with CHNA 2 at 64.9%, CHNA 9 at 54.4% and the State at 53.4%. In CHNA 2, a higher percentage of adult women (59.8%) reported having been involved in regular physical activity than

adult women in the State (51.4%), while CHNA 9 reported a lower percent of women involved in regular physical activity at 48.8%.

The numbers of respondents by race/ethnicity were too few to provide meaningful data within CHNA 2 or CHNA 9. Within the Commonwealth as a whole, the highest percentage of respondents who had regular physical activity was reported among White, non-Hispanics at 54.3%, followed by Black non-Hispanics at 43.3%, Asians at 40.7% and Hispanics at 40.6%.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In the State as a whole, the higher the educational level, the more likely the adult was to be involved in regular physical activity. The lowest percentage of adults involved in regular physical activity was 37.9% among those with less than a high school education. The rate increased to 48.6% for high school graduates, 51.6% for those with some college and 57% for college graduates.

In CHNA 2, the percent of adults involved in regular physical activity among those with less than a high school education was suppressed. For all other educational levels, CHNA 2 had rates of adults involved in regular physical activity higher than the State and CHNA 9. For high school graduates, the regular physical activity rate in CHNA 2 of 54.6% was higher than those of CHNA 9 and the State, both at 48.6%. The highest percent of adults involved in regular physical activity was among those with some college in CHNA 2 at 74.6%, 1.4 times the rate among those some college in the State and 1.8 times the rate in CHNA 9 for this group. Among college graduates in CHNA 2, 62.9% were involved in regular physical activity.

Within CHNA 9 a different trend was seen, with physical activity rates decreasing from a high of 52.3% among those with less than a high school education to 48.6% of those with a high school diploma and 41.3% of those with some college. It was only for college graduates that the regular physical activity rate increased in CHNA 9 to 58.5%, a figure higher than that for college graduates in the State at 57%.

Within the qualitative assessment, Focus Group participants and Key Informants discussed the need for “More bike routes,” “Cleaner playgrounds,” “Safe walking trails,” and “More sidewalks,” demonstrating a desire for themselves and their families to engage in healthy activities.

“I’d really like to see more sidewalks done....The sidewalks length is not long enough and they need to be bigger so the people don’t have to get into the road. It is unsafe for the walkers but also for the drivers. A lot of people don’t walk in areas and I don’t blame them because it is not safe.”

PART 2

GENERAL HEALTH CHARACTERISTICS:

Maternal and Child Health

Mortality

Infectious Diseases

Primary Care Manageable Hospitalizations

Chronic Conditions

Injuries and Violence

PART 2 - INTRODUCTION

This section of the Assessment contains data related to the demographic, socioeconomic, and general health characteristics of the communities within the Montachusett Public Health Network (MPHN). In combination with the data presented in Part 1, these indicators give a comprehensive picture of the health status of the region and its constituent communities. These data have been collected and presented in a series of community health assessments conducted by the Joint Coalition on Health and therefore allow for comparisons overtime and a longitudinal look at the health of the area.

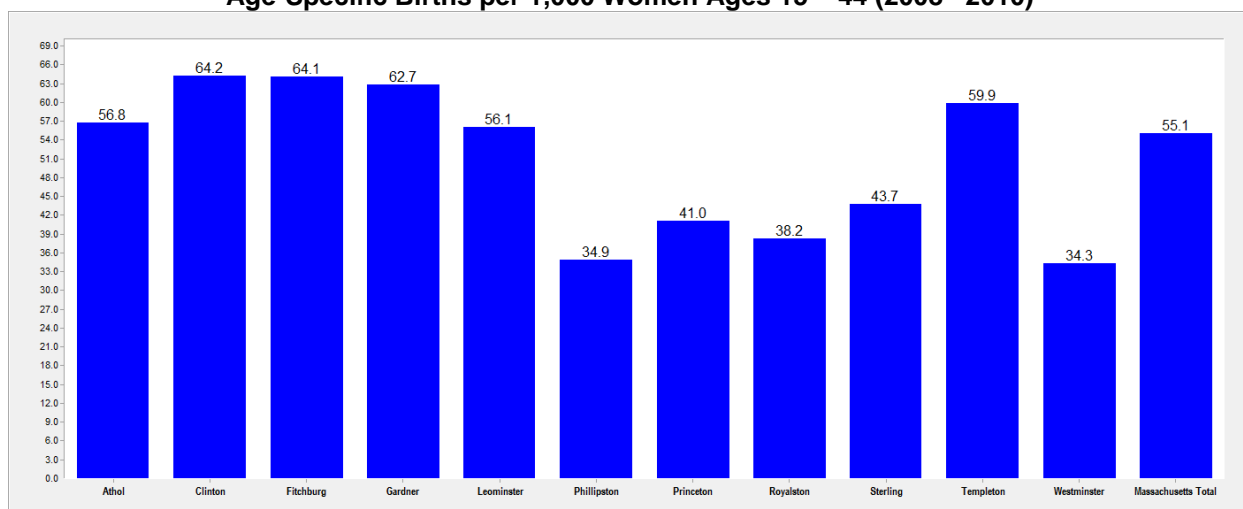
Data in this section is primarily quantitative in nature as the qualitative data collection tools used in this Assessment focused primarily on the MPHN priority areas of Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Consequently, any qualitative information included here was spontaneously generated by Focus Group and/or Key Informant Interview participants.

MATERNAL AND CHILD HEALTH

General Fertility Rate or Age-Specific Births per 1000 Women Ages 15 – 44

Overall, Massachusetts had a fertility rate, defined as age-adjusted births per 1000 women ages 15 – 44, of 55.1 for the period of 2008 – 2010. Within the MPH service area, the highest fertility rates were reported in Clinton with 64.2 births and Fitchburg with per 64.1 births per 1000 women in this 3 year period. A fertility rate of over 60 was also reported in Gardner with a fertility rate of 62.7. The lowest fertility rates were reported in Westminister (34.3) and Phillipston (34.9). Royalston also had a fertility rate of less than 40 at 38.2 births per 1000.

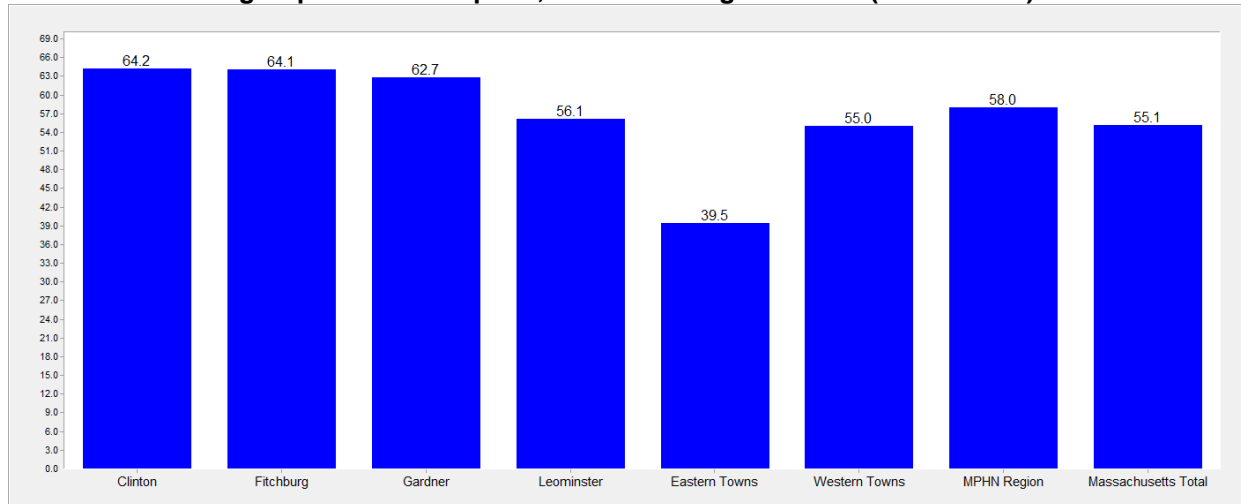
Age-Specific Births per 1,000 Women Ages 15 – 44 (2008 –2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

The MPH service area had a fertility rate of 58 in the 2008 – 2010 time period, slightly higher than that of the Commonwealth as a whole. When combined into regions, the Eastern Towns experienced a comparatively low fertility rate of 39.5, while the Western Towns reported a fertility rate of 55, in line with that of the State, but slightly lower than the MPH region as a whole.

Age-Specific Births per 1,000 Women Ages 15 – 44 (2008 – 2010)



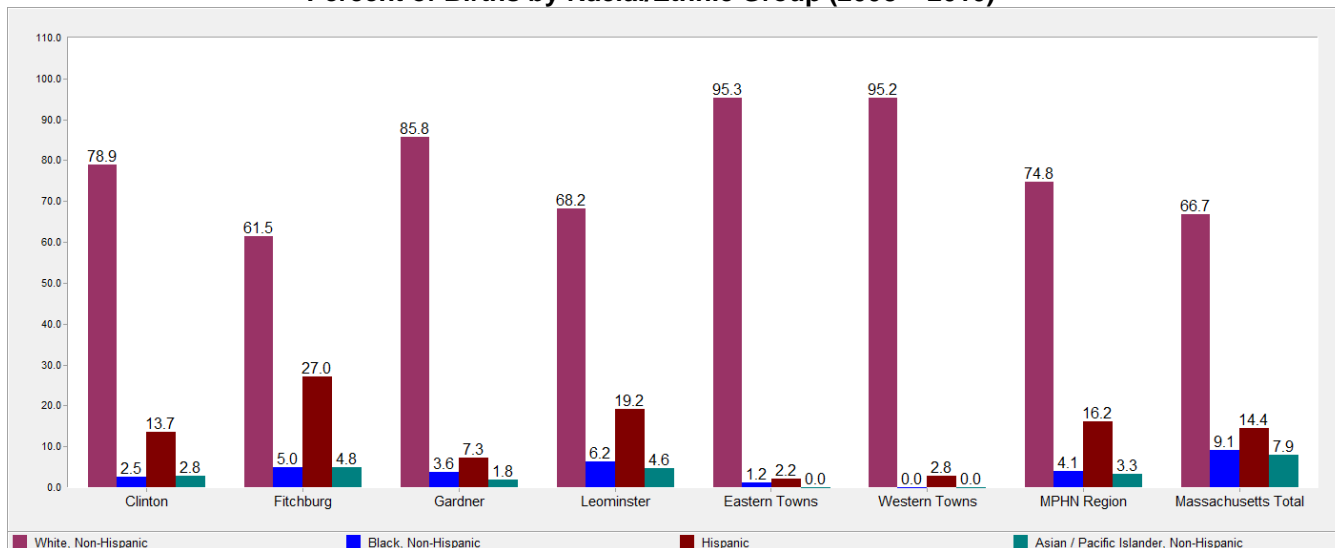
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Births by Race/Ethnicity

In Massachusetts in the 2008 - 2010 time period, 66.7% of the births were to White, non-Hispanic mothers, while 14.4% of births were to Hispanic mothers, 9.1% were to Black, non-Hispanic mothers and 7.9% were to Asian mothers. Please note that the terms used here to describe different racial/ethnic groups are those used within the MassCHIP database and may differ from those used elsewhere in this report as well as those used by residents within the region to describe themselves. The MassCHIP database was the source of data for much of this report. Please see the “Quantitative Data Sources” section of this report for additional information.

It is noteworthy to compare the percent of births to mothers of the major racial/ethnic groups to the overall breakdown of the Massachusetts population by these racial/ethnic groups in 2010 (9.6% Hispanics, 6.6% Blacks and 5.3% Asians). The Hispanic and Asian birth rates during this time period were 1.5 times what would be expected based on the Hispanic and Asian populations within the State, while the Black birth rate was 1.4 times the expected rate. The White, non-Hispanic birth rate, by contrast, was only 83% of the expected rate based on population.

Percent of Births by Racial/Ethnic Group (2008 – 2010)



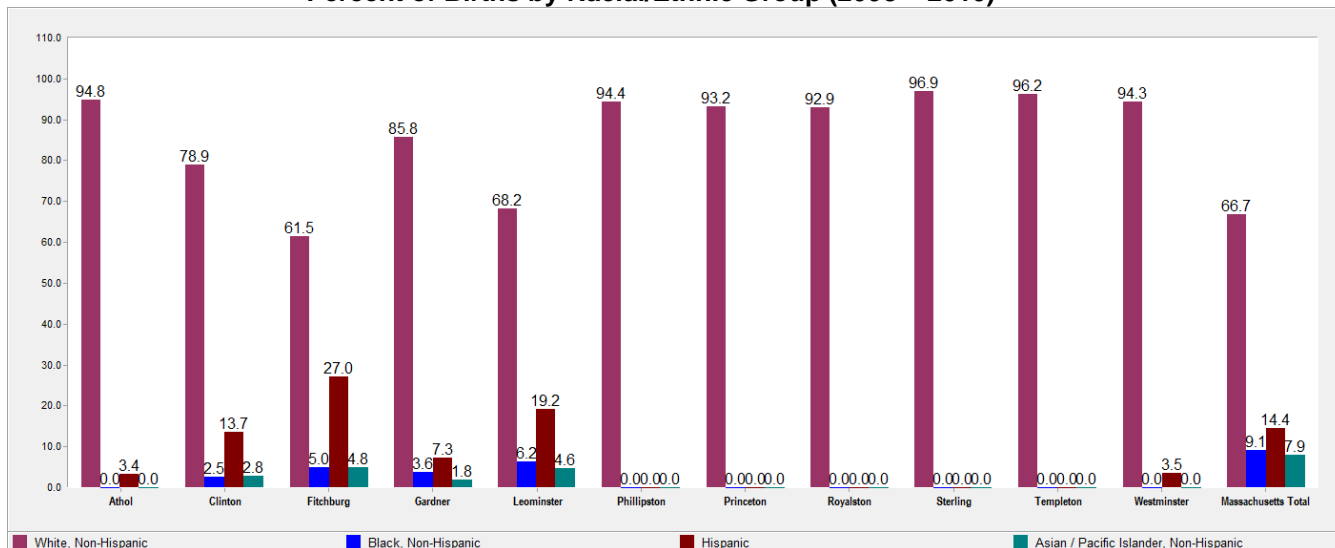
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

As would be expected, the highest percentage of births to White, non-Hispanic mothers was reported in the MPH Region communities with the largest percentage of residents who described themselves as White, non-Hispanic. All of the 7 communities in the region whose population in 2010 was described as over 95% White, non-Hispanic reported over 92% of births in the 2008 – 2010 time period to White, non-Hispanic mothers.

Within MPH Region service area, 16.2% of all births in the 2008 – 2010 time period were to Hispanic mothers while 4.1% were to Black, non-Hispanic mothers and 3.3% were to Asian mothers. When these numbers are compared to MPH Region's population, the birth rates are similar to the State's birth rates for Asians at 1.5 times what was expected, but lower for the Hispanic and Black populations, at 1.3 and 1.2 times the expected rates, respectively.

Within the reporting regions, the highest percent of overall births in the 2008 – 2010 time period to Hispanic mothers was in Fitchburg, at 27% of all births or 1.3 times the expected amount. This was followed by Leominster with 19.2% of births to Hispanic mothers or 1.3 times the expected rate and Clinton with 13.7% of births were to Hispanic mothers, about equal to the expected rate.

Percent of Births by Racial/Ethnic Group (2008 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

The highest percent of overall births in the 2008 – 2010 time period to Black mothers was in Leominster at 6.2% of all births or 1.2 times the expected amount. In Fitchburg, 5% of births were to Black mothers, about equal to the expected rate.

The highest percent of overall births in the 2008 – 2010 time period to Asian mothers was in Fitchburg at 4.8% of all births or 1.3 times the expected rate, followed by Leominster with 4.6% of births to Asian mothers, which was 1.6 times the expected rate.

On an individual town basis, Athol reported 3.4% of births to Hispanic mothers (only 94% of the expected rate), while Westminster reported 3.5% of births to Hispanic mothers or 1.3 times the expected rate.

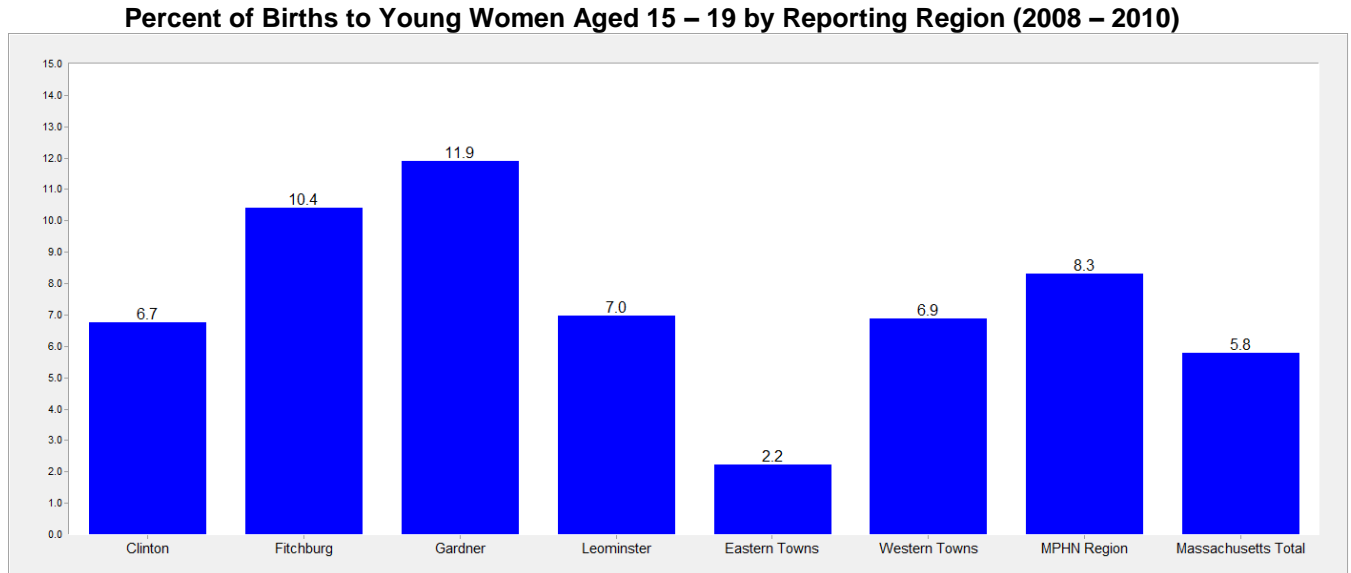
The zeroes appearing on the charts above for the Eastern Towns, Western Towns, Athol, Phillipston, Princeton, Royalston, Sterling, Templeton and Westminster represent values that were suppressed within MassCHIP due to a small number of actual cases.

Births to Young Mothers

There were 130 births to young women ages 10 – 14 in Massachusetts during the 2008 – 2010 time period. Within the MPH region, there was 1 birth to a young woman between the ages of 10 – 14 to a young mother from Athol.

In Massachusetts in the 2008 – 2010 time period, 5.8% of all births were to young women in the 15 – 19 age group. This represented an age specific birth rate of 18.9 per 1000. The MPH region as a whole reported 8.3% of all births to women ages 15 – 19, a rate 1.4 times that of the Commonwealth. The age specific birth rate per 1000 in the MPH region was 29.6, a rate 1.6 times that of the State for this age group.

Within the reporting regions in the MPH service area, Gardner had the highest percentage of all births to young women in the 15 – 19 age group at 11.9%, more than twice the percentage reported by the Commonwealth. Fitchburg at 10.4%, Leominster at 7%, the Western Towns at 6.9% and Clinton at 6.7% also reported higher percentages of births to young mothers than the State.

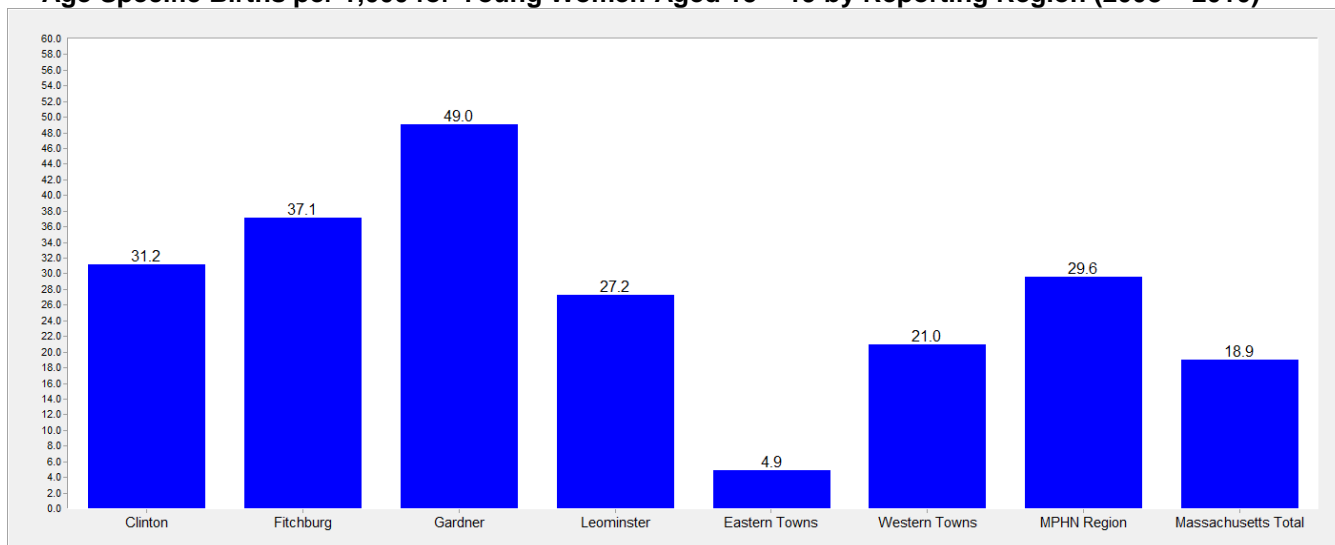


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Most of the reporting regions in the MPH service area reported age specific birth rates for young women which were higher than those of the State. The age specific birth rates for the 15 – 19 age group in Gardner at 49 were 2.6 times that of the Commonwealth for this age group. Fitchburg with a rate of 37.1 and Clinton with a rate of 31.2, had rates of 2.0 and 1.7 times that of the Commonwealth, respectively.

The only reporting region in the MPH service area with a percent of births to young women ages 15 – 19 which was lower than that of the Commonwealth was the Eastern Towns with only 2.2% of births to young women for an age-specific birth rate of 4.9.

Age Specific Births per 1,000 for Young Women Aged 15 – 19 by Reporting Region (2008 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

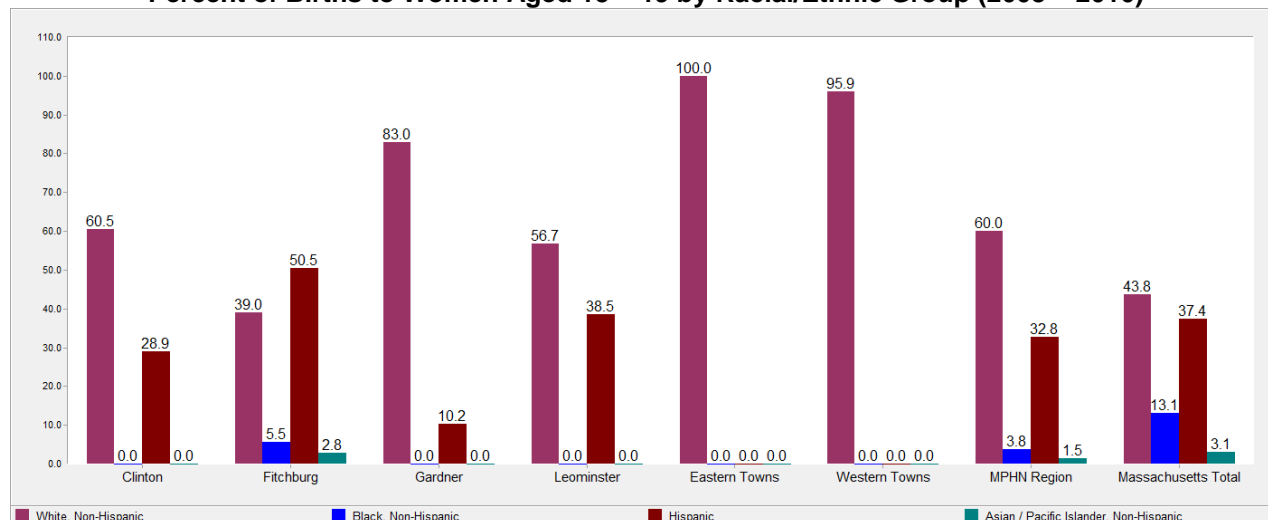
Because the MassCHIP database suppresses numbers of less than 5 on its reports and replaces them with “NA”, births to young women between the ages of 15 – 19 cannot be determined for many of the smaller communities in the MPH service area. Data was not available individually for Phillipston, Princeton and Westminster, but data from these communities was included in the reporting regions. Individual data was available for Athol, which reported 8% of births to women in this age group in the 2008 – 2010 time period for an age specific birth rate of 25.4, Sterling reported 2.6% of births for a rate of 7.1, and Templeton reported 3.8% of births to women in this age group for an age-specific birth rate of 13.1.

Births to Young Mothers by Race/Ethnicity

In Massachusetts in the 2008 – 2010 time period, there were 12,967 births to young women in the 15 – 19 age group. Of these births, 43.8% were to White, non-Hispanic mothers, 37.4% were to Hispanic mothers, 13.1% were to Black mothers, and 3.1% were to Asian mothers. These births represented age and race/ethnicity specific birth rates per 1000 women of 11.2 for White, non-Hispanic young women, 59 for Hispanic young women, 30.9 for Black young women, and 10.8 for Asian young women.

In the MPH region, 60% of the births to young women ages 15 – 19 in the 2008 – 2010 time period were to White, non-Hispanic mothers, 32.8% were to Hispanic mothers, 3.8% were to Black mothers, and 1.5% were to Asian mothers. These births represented age and race/ethnicity specific birth rates per 1000 women of 22.6 for White, non-Hispanic young women, 65.3 for Hispanic young women, 34.6 for Black young women, and 14.4 for Asian young women.

Percent of Births to Women Aged 15 – 19 by Racial/Ethnic Group (2008 – 2010)

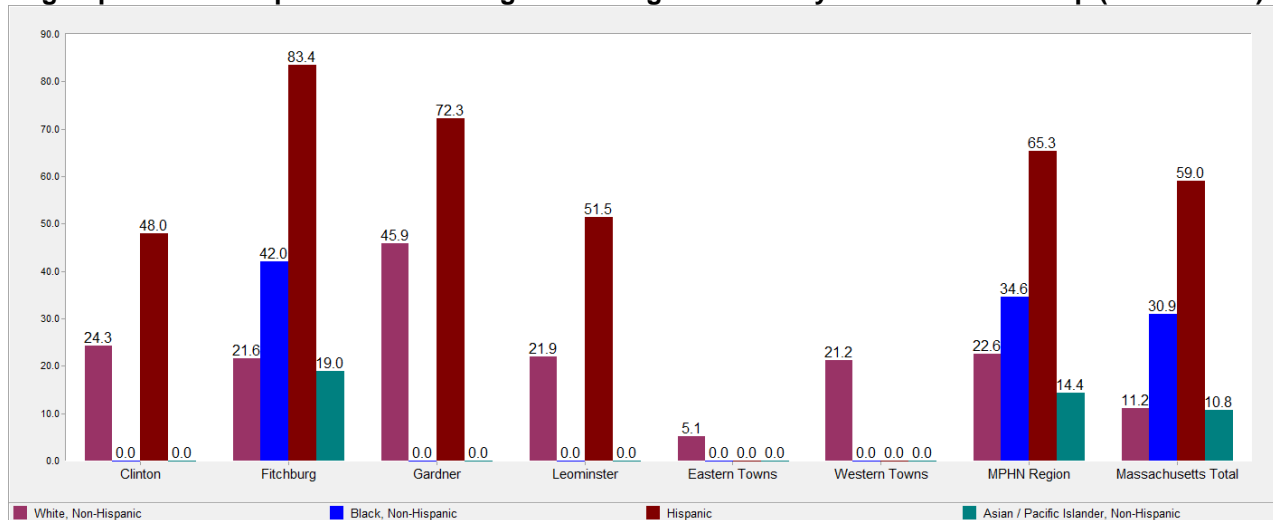


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the MPH service area, several of the reporting regions reported high percentages of births in the 15 – 19 age group to White, non-Hispanic women, including the Eastern Towns (100%), the Western Towns (95.9%) and Gardner (83%). The age and race/ethnicity specific birth rates per 1000 associated with these births were 5.1 for the Eastern Towns, 21.2 for the Western Towns and 45.9 for Gardner. Gardner experienced the highest age specific birth rate for White, non-Hispanic young women ages 15 – 19 in the region, with a rate that was more than 4 times that of the Commonwealth and twice the rate of the MPH region as a whole.

Fitchburg reported that 50.5% of its births in the 15 – 19 age group during the period of 2008 – 2010 were to Hispanic women, while in Leominster it was 38.5%, in Clinton it was 28.9% and in Gardner it was 10.2%. The age and race/ethnicity specific birth rates associated with these births were 83.4 for Fitchburg, 51.5 for Leominster, 48 for Clinton and 72.3 for Gardner. Fitchburg and Gardner experienced the highest age specific birth rates for Hispanic young women ages 15 – 19 in the region, with rates that were 1.4 and 1.2 times that of the Commonwealth.

Age Specific Births per 1000 for Young Women Aged 15 – 19 by Racial/Ethnic Group (2008 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Fitchburg was the only reporting region in the MPH service area to report births to Black women in the 15 – 19 age group during the period of 2008– 2010, with 5.5% of births to young women to young Black women. The associated age and race/ethnicity specific birth rate was 42 or 1.4 times that of the Commonwealth for Black women ages 15 – 19.

Fitchburg also reported that 2.8% of births to young women in that city were to Asian women during this time period, representing an age and race/ethnicity specific birth rate of 19 or 1.8 times that of the Commonwealth.

As mentioned previously, in the MassCHIP database, figures of fewer than 5 are suppressed and replaced by N/A. The zeroes on the charts represent these suppressed values.

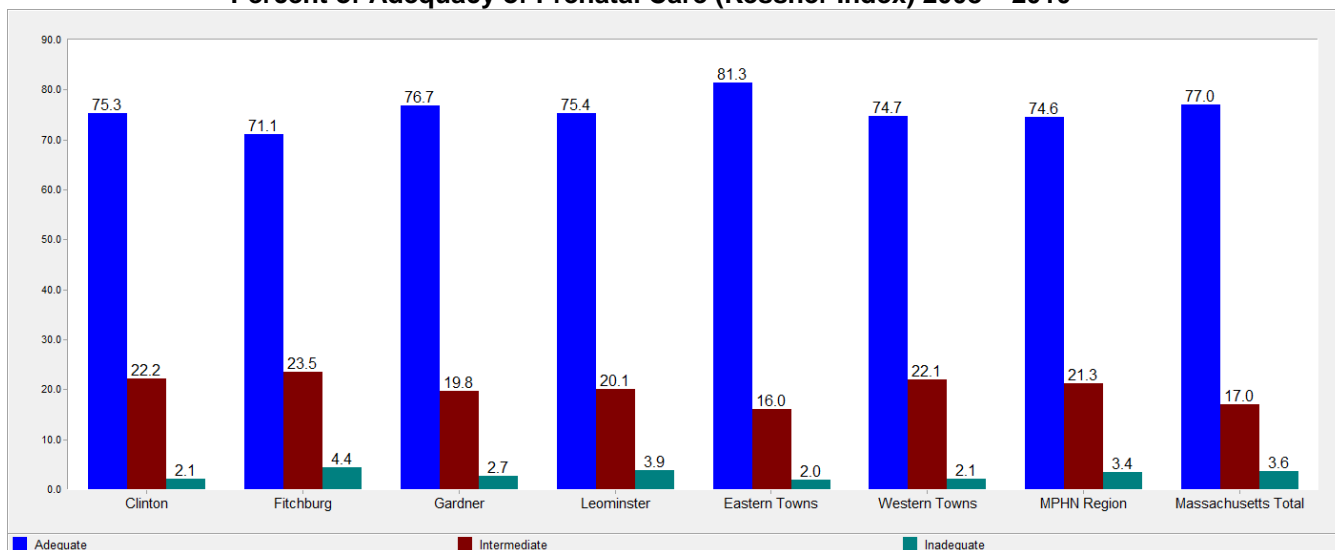
Due to the small number of births to 15 – 19 year old women in the individual towns within the MPH region, despite the aggregation of 3 years of data, an analysis cannot be done at the town level.

Adequate Prenatal Care

One measure of the adequacy of prenatal care used within Massachusetts is the Kessner Index. This measure is based on the trimester in which prenatal care began and the number of prenatal visits. According to the Kessner Index, within the Commonwealth there was adequate prenatal care for 77% of total births. Within the reporting regions, only the Eastern Towns at 81.3% reported a percentage of adequate prenatal care higher than that of the State. The MPH region as a whole reported a percentage of adequate prenatal care of 74.6%, lower than that of the State.

The lowest percentages of adequate prenatal care were reported in Fitchburg at 71.1%, the Western Towns at 74.7%, Clinton at 75.3% and Leominster at 75.4%.

Percent of Adequacy of Prenatal Care (Kessner Index) 2008 – 2010



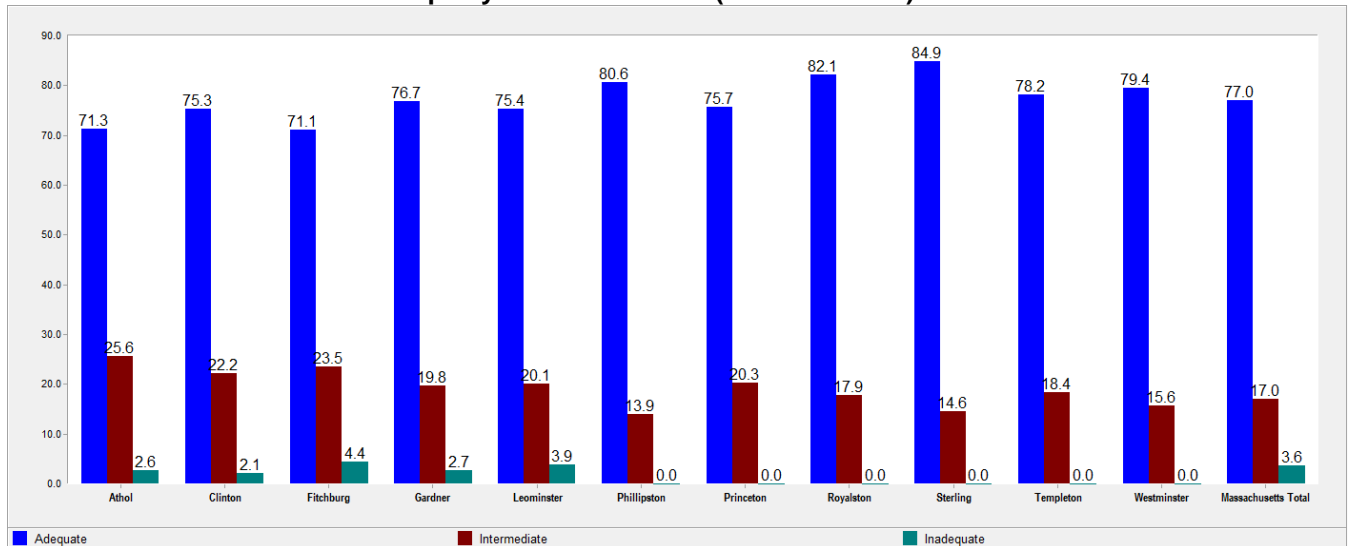
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, 3.6% of women received inadequate prenatal care. Fitchburg at 4.4% and Leominster at 3.9% both had higher percentages of women receiving inadequate prenatal care than the Commonwealth. Within the MPH region as a whole, fewer women received inadequate prenatal care than those within the Commonwealth overall.

A review of the adequacy of prenatal care within the individual cities and towns in the MPH service area indicates that there were 3 towns in which the prenatal care was adequate for 80% of births or higher in the 2008 – 2010 time period. The highest percentages of adequate prenatal care were found in Sterling at 84.9% and Royalston at 82.1% and Phillipston at 80.6% of total births.

On the other hand, there were 6 cities and towns in which prenatal care was adequate for fewer than 77% of births, with Fitchburg at 71.1%, Athol at 71.3%, Clinton at 75.3%, Leominster at 75.4%, Princeton at 75.7% and Gardner at 76.7% of births having had adequate prenatal care.

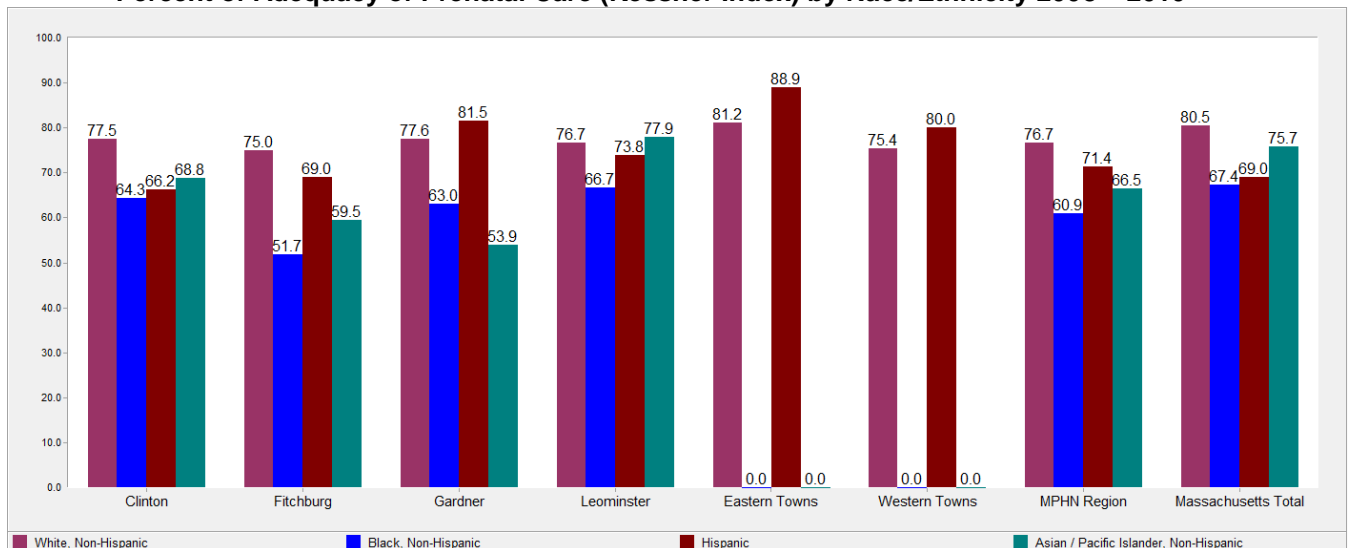
Percent of Adequacy of Prenatal Care (Kessner Index) 2008 – 2010



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

There was wide variability in the adequacy of prenatal care by race/ethnicity within the Commonwealth. Overall, adequate prenatal care was reported for 80.5% of White, non-Hispanic births; 67.4% of Black, non-Hispanic births; 69% of Hispanic births; and 75.7% of Asian births in the Commonwealth in 2008 – 2010. Within the MPH N service area as a whole, the percent of births with adequate prenatal care for White, non-Hispanic, Black, non-Hispanic and Asian populations was lower than those reported for the Commonwealth for these populations. However, adequate prenatal care was reported for a higher percentage of Hispanic births in the MPH N region as compared with Hispanic births in the State.

Percent of Adequacy of Prenatal Care (Kessner Index) by Race/Ethnicity 2008 – 2010



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

For white, non-Hispanic births, most of the regions in the MPH service area reported lower rates of adequate prenatal care than the Commonwealth, with the lowest percentages reported in Fitchburg at 75% and the Western Towns at 75.4%. The Eastern Towns, however, had a percentage of adequate prenatal care for White, non-Hispanics of 81.2%, higher than that of the State.

For Black, non-Hispanic births, all of the reporting regions in the MPH region reported lower percentages of adequate prenatal care than the State, with the lowest percentage of adequate prenatal care for Black, non-Hispanics reported in Fitchburg at 51.7% of births. At barely over half, this was the lowest percentage of adequate prenatal care reported for any racial/ethnic group in a community in the MPH region. It should be noted that figures for the Eastern Towns and the Western Towns were suppressed due to inadequate sample sizes.

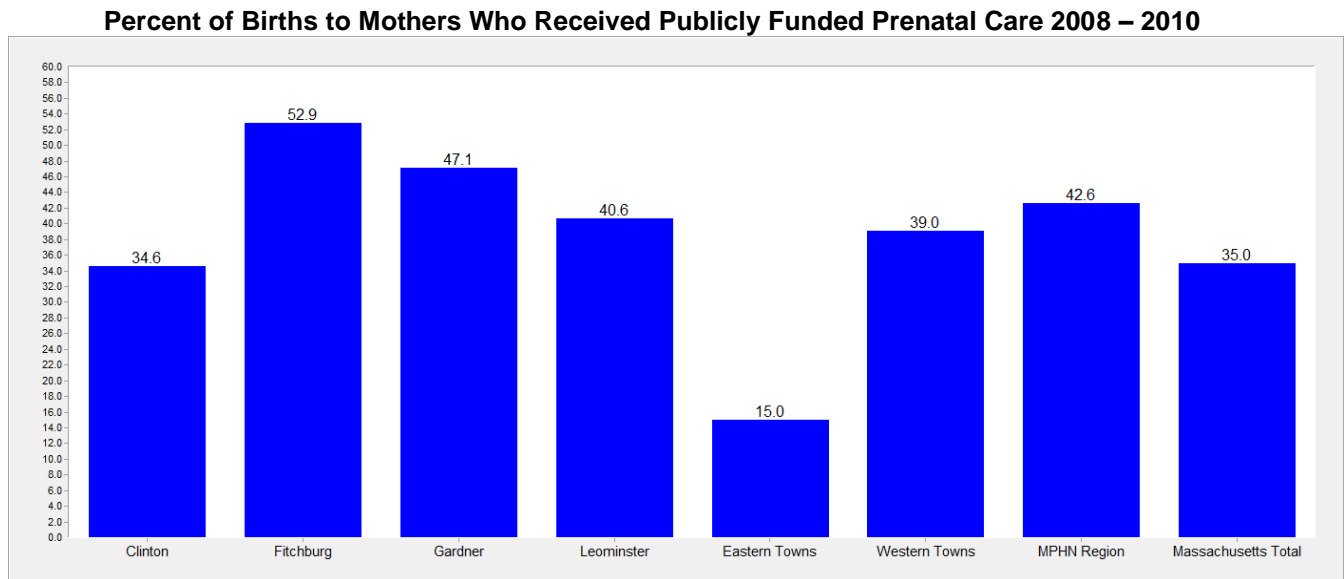
There were 3 reporting regions in the MPH service area in which adequate prenatal care was reported for more than 80% of births to Hispanic women in the 2008 – 2010 time period, well above the State average. The Eastern Towns reported adequate prenatal care for 88.9% of Hispanic births, followed by Gardner at 81.5% and the Western Towns at 80% of Hispanic births. In these 3 reporting regions, the adequacy of prenatal care for Hispanics was higher than that of White, Non-Hispanics and Black, non-Hispanics. Clinton at 66.2% and Fitchburg at 69% (equivalent to the State percentage) had the lowest percentages of adequate prenatal care for Hispanic births in the area.

The adequate prenatal care figures for Asian births were the most variable in the region. Leominster, with adequate prenatal care for 77.9% of Asian births, was the only community in the region to report a higher percentage than the Commonwealth. The lowest percentages of adequate prenatal care for Asian births were found in Gardner at 53.9% and Fitchburg at 59.5%. It

should be noted that figures for the Eastern Towns and the Western Towns were suppressed due to inadequate sample sizes.

Prenatal Care Funding

Within Massachusetts, 35% of the births in the 2008 – 2010 timeframe were to mothers who received publicly-funded prenatal care. Within the MPH service area as a whole, 42.6% of births during this time frame were to mothers who received publicly-funded prenatal care. The MPH rate was 1.2 times that of the Commonwealth.

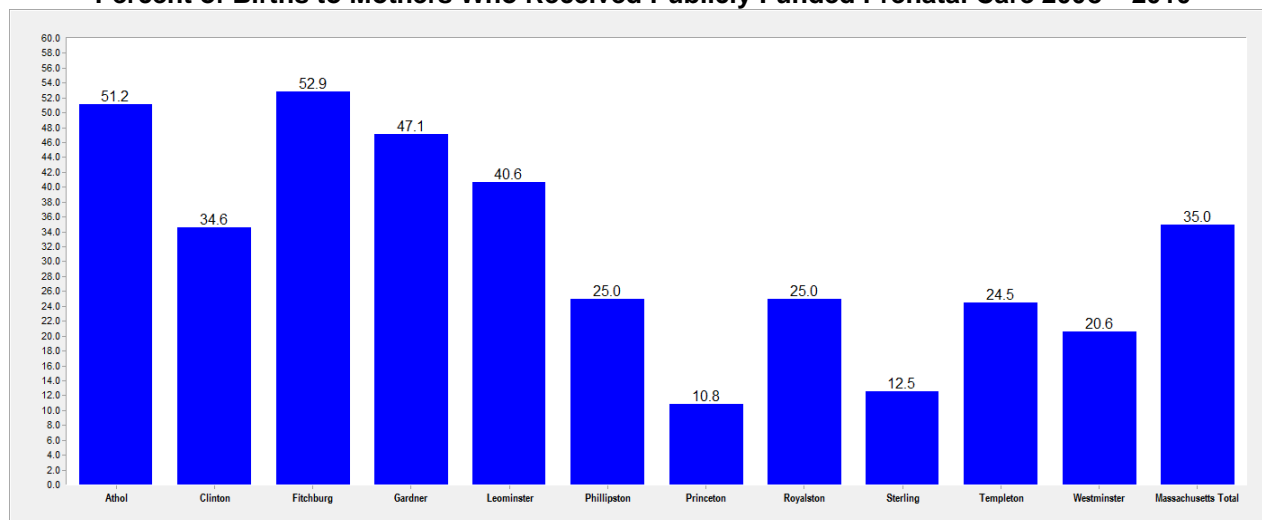


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the reporting regions in the MPH service area, the highest percentages of births to mothers who received public funding for prenatal care were reported in Fitchburg at 52.9% (1.5 times that of the State) and Gardner at 47.1% (1.3 times that of the State). The lowest percentage of births to mothers who received public funding for prenatal care was reported in the Eastern Towns at 15%, less than half of the percentage reported by the Commonwealth.

There is wide variability among the individual cities and towns in the MPH region relative to the percent of births to mothers who received publicly-funded prenatal care in 2008 –2010. The highest percentages were found in Fitchburg (52.9%) and Athol (51.2%), with both communities reporting that over half of births were to women whose prenatal care was publicly funded. The lowest percentages were reported in Princeton (10.8%) and Sterling (12.5%), with both communities reporting small percentages of births to mothers who received publicly-funded prenatal care.

Percent of Births to Mothers Who Received Publicly Funded Prenatal Care 2008 – 2010

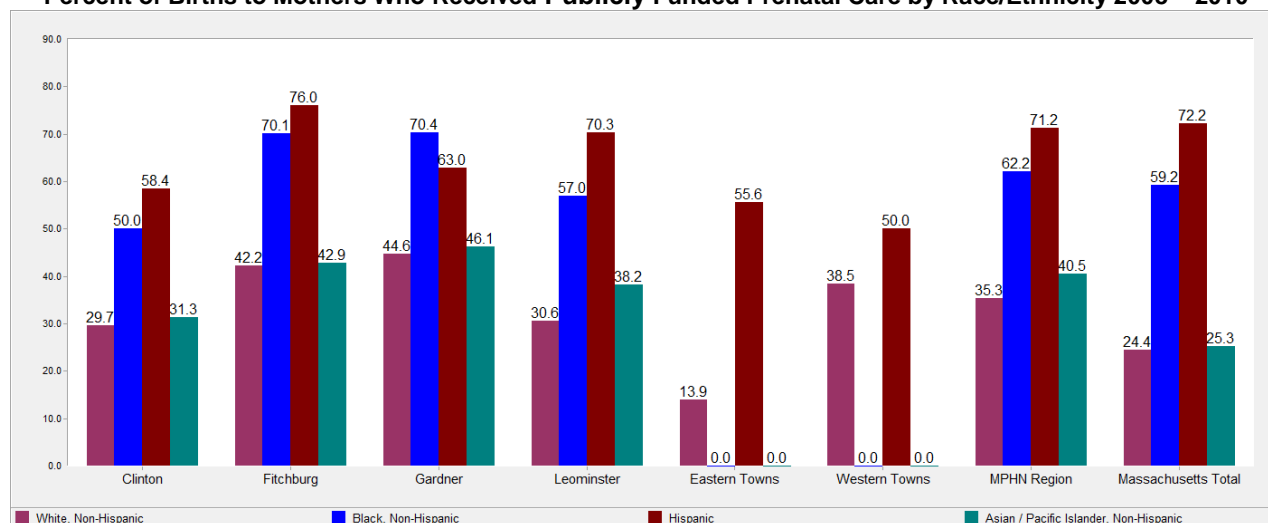


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within Massachusetts, the percentages of births to mothers who received publicly-funded prenatal care varied by racial/ethnic group. Mothers receiving publicly-funded prenatal care accounted for 24.4% of births to White, non-Hispanic mothers, 59.2% of births to Black, non-Hispanic mothers, 72.2% of births to Hispanic mothers, and 25.3% of births to Asian mothers. Within the MPH N region as a whole, the percentages were higher for White, non-Hispanic mothers (35.3%), Black, non-Hispanic mothers (62.2%) and Asian mothers (40.5%), but slightly lower for Hispanic mothers (71.2%).

Five of the reporting regions had higher percentages of births to White, non-Hispanic mothers who received publicly-funded prenatal care than the State, including Gardner with 44.6%, Fitchburg with 42.2%, the Western Towns with 38.5%, Leominster with 30.6% and Clinton with 29.7% of births. The only MPH N community with a rate lower than the Commonwealth was the Eastern Towns with mothers who received publicly-funded prenatal care accounting for 13.9% of births to White, non-Hispanic mothers.

Percent of Births to Mothers Who Received Publicly Funded Prenatal Care by Race/Ethnicity 2008 – 2010



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

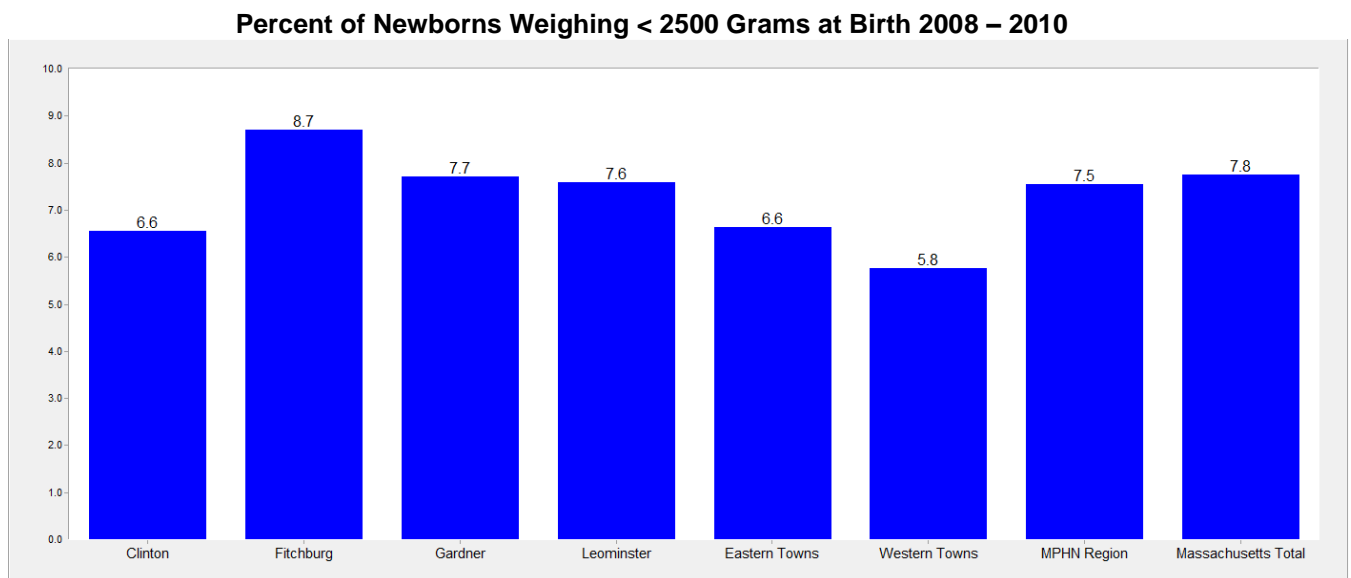
Gardner with 70.4% and Fitchburg with 70.1% of Black, non-Hispanic births to mothers who received publicly-funded prenatal care were the only reporting regions with a rate higher than the State for this group of mothers. The lowest percentage of Black, non-Hispanic births to mothers who received publicly-funded prenatal care was in Clinton at 50% of births. It should be noted that figures for the Eastern Towns and the Western Towns were suppressed due to inadequate sample sizes.

Overall, in all of the regions except Gardner, the racial/ethnic group with the highest percent of births to mothers who received publicly-funded prenatal care was Hispanic mothers. Within the Commonwealth, 72.2% of all births to Hispanic mothers in the 2008 – 2010 time period were to women who had received publicly-funded prenatal care. Within the reporting regions, Fitchburg had 76% of its births and Leominster had 70.3% of its births to Hispanic mothers to women who received publicly-funded prenatal care. The lowest percentage of Hispanic mothers who received publicly-funded prenatal care was found in the Western Towns representing 50% of these births.

Gardner, Fitchburg, Leominster and Clinton reported 46.1%, 42.9%, 38.2% and 31.3% of its Asian births, respectively, to mothers who received publicly-funded prenatal care. All of these rates were higher than the State. Again, figures for the Eastern Towns and the Western Towns were suppressed due to inadequate sample sizes.

Low Birth Weight

Newborns weighing less than 2,500 grams (5 pounds, 8 ounces) at birth are classified as low birth weight and are at an increased risk for health problems. Within Massachusetts, during the 2008 – 2010 time period, 17,409 newborns were categorized as low birth weight, representing 7.8% of births. Within the MPH service area, there were 427 newborns characterized as low birth weight, representing 7.5% of births in the region.

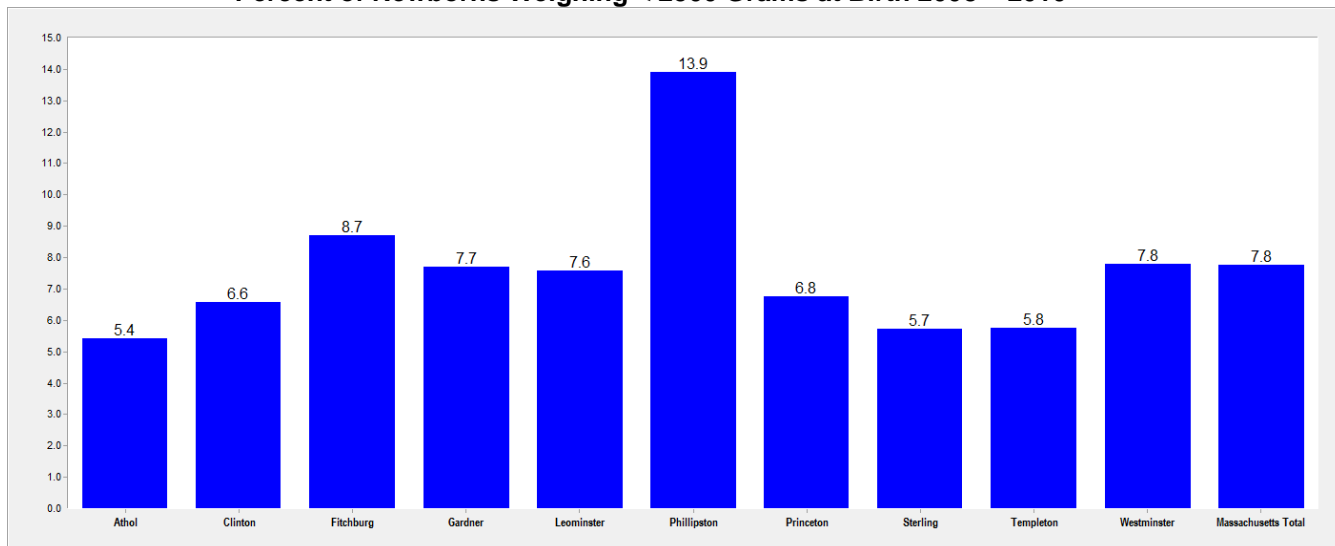


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 5.0% of Newborns
Healthy People 2020 Goal = 7.8% of Newborns

Among the reporting regions in the MPH service area, only Fitchburg at 8.7% reported a higher percentage of low birth weight infants than did the Commonwealth. The lowest percentage of low birth weight infants was reported in the Western Towns at 5.8% of births.

Percent of Newborns Weighing < 2500 Grams at Birth 2008 – 2010

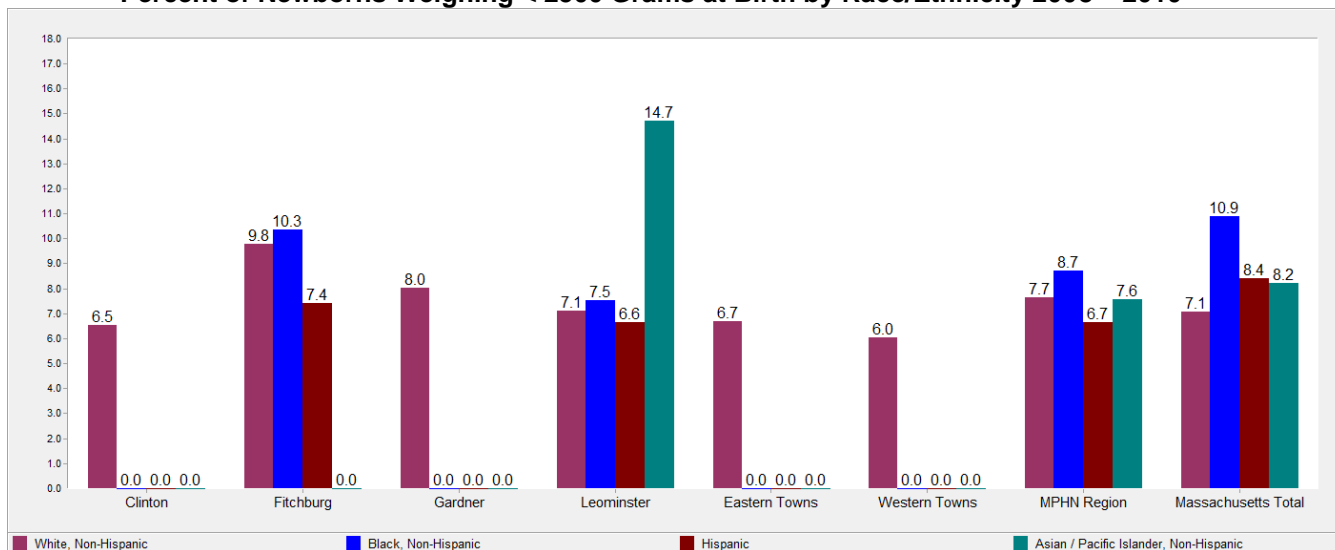


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 5.0% of Newborns
Healthy People 2020 Goal = 7.8% of Newborns

There were only two individual communities within the MPH region with low birth weight rates that were higher than the State. Phillipston reported the highest percentage of low birth weight newborns at 13.9, a rate 1.8 times that of the Commonwealth's. As mentioned previously, Fitchburg reported that 8.7% of its newborns were low birth weight. Royalston is missing from the chart above due to not having reported any low birth weight newborns in this time period. The towns with the lowest percentage of low birth weight births were Athol 5.4%, Sterling at 5.7% and Templeton at 5.8%.

Percent of Newborns Weighing < 2500 Grams at Birth by Race/Ethnicity 2008 – 2010



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 5.0% of Newborns

Healthy People 2020 Goal = 7.8% of Newborns

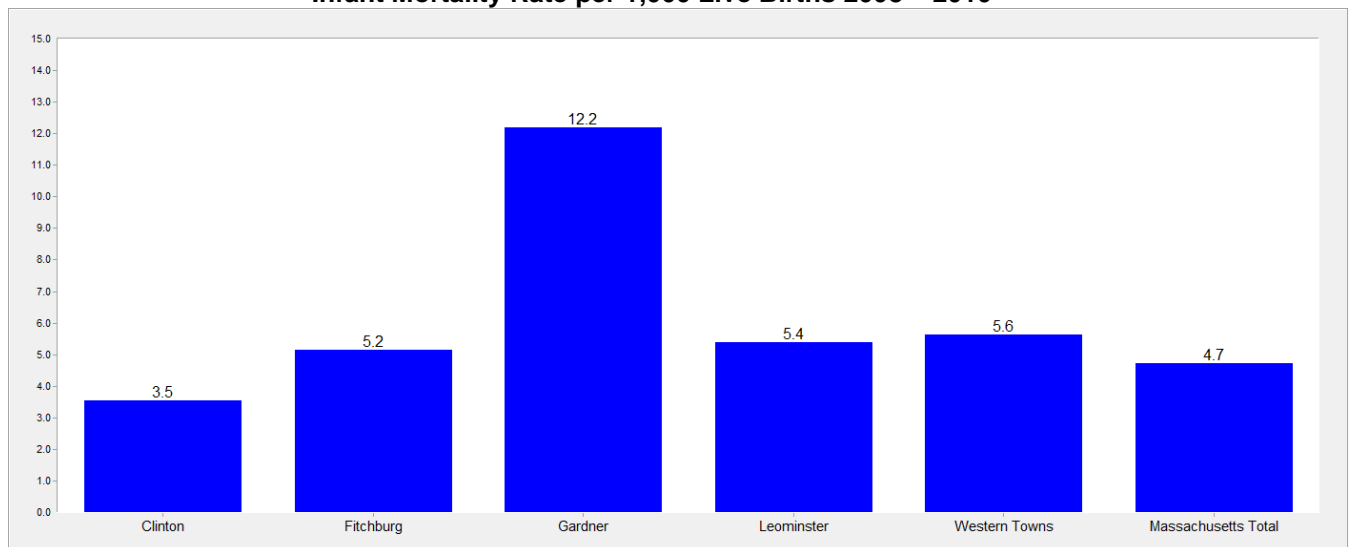
Within the Commonwealth, the lowest percent of low birth weight births in the 2008 – 2010 time period was reported among White, non-Hispanics at 7.1%, followed by Asians at 8.2% and Hispanics at 8.4%. Black, non-Hispanics had the highest percent of low birth weight births at 10.9%. The MPH region as a whole had lower percentages of low birth weight newborns for all of the major racial/ethnic groups than did the Commonwealth, except for White, non-Hispanics. Within the MPH service area, the lowest percent of low birth weight births was reported among Hispanics at 6.7%, followed by Asians at 7.6% and White, non-Hispanics at 7.7%. As in the Commonwealth as a whole, the highest percentage of low birth weight newborns was reported among Black, non-Hispanics at 8.7%.

Within the reporting regions, the highest percent of low birth weight births was reported among Asians in Leominster at 14.7%, followed by Black, non-Hispanics in Fitchburg at 10.3% and White, non-Hispanics in Fitchburg at 9.8%. For MPH regions with sufficient data, the lowest percent of low birth weight births was reported among White, non-Hispanics in the Western Towns at 6%, followed by White, non-Hispanics in Clinton at 6.5%, Hispanics in Leominster at 6.6% and White, non-Hispanics in the Eastern Towns at 6.7%. Again, several figures were suppressed and represented by zeroes on the chart.

Infant Mortality Rate

The Infant Mortality Rate (IMR) is defined as the number of deaths of infants (less than one year of age) per 1000 live births. In Massachusetts in the 2008 – 2010 time period, the Infant Mortality Rate was 4.7. Within the MPH region, the Infant Mortality Rate of 5.7 was higher than that of the Commonwealth. Gardner had the highest IMR within the reporting regions at 12.2 (2.6 times the State rate), followed by the Western Towns at 5.6 and Leominster at 5.4 infant deaths per 1000 live births. IMR cannot be reported for the smaller towns in the region due to the small number of cases. The IMR for the Eastern Towns has also been suppressed due to small numbers.

Infant Mortality Rate per 1,000 Live Births 2008 – 2010



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 4.5 per 1,000

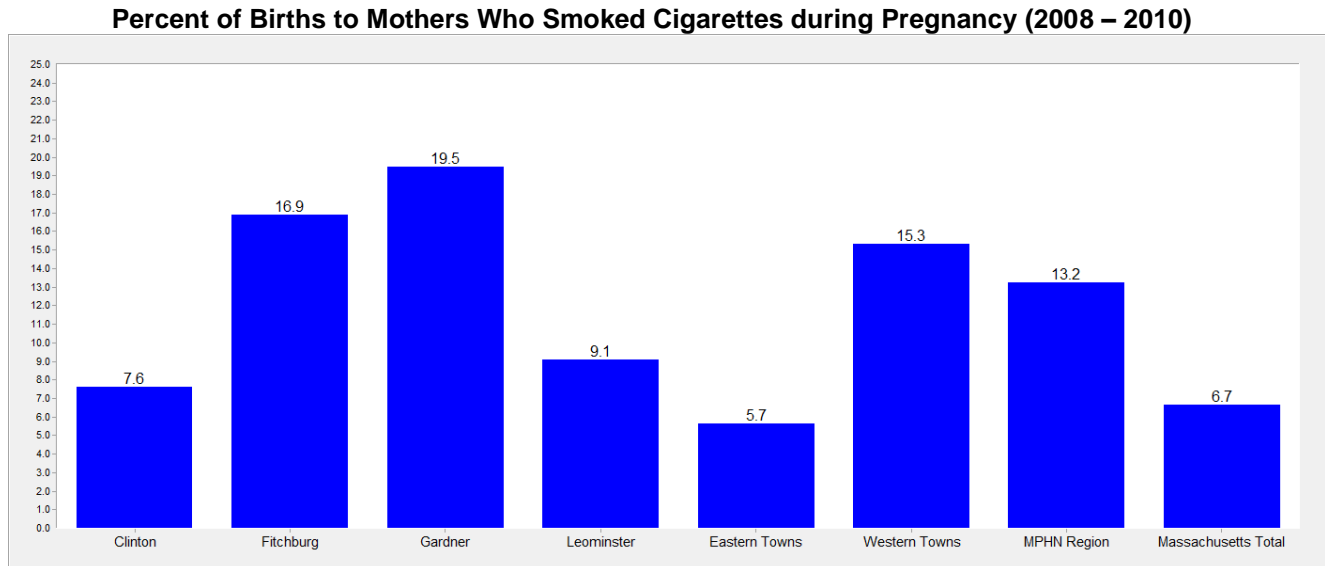
Healthy People 2020 Goal = 6.0 per 1,000

Because of the small numbers involved, it is not possible to provide an analysis of the Infant Mortality Rate by race/ethnicity for reporting regions in the MPH region service area. Overall, during the 2008-2010 time period within the Commonwealth, Black, non-Hispanics had the highest Infant Mortality Rate at 9.2, followed by Hispanics at 7.0, White, non-Hispanics at 3.7, and Asians at 3.4. Within the MPH region as a whole, figures were only available for White, non-Hispanics (with an IMR of 4.7) and Hispanics (with an IMR of 9.8). Both of these Infant Mortality Rates were higher than those of the Commonwealth for the same racial/ethnic groups. The only other IMR figures by race/ethnicity available in the MPH region are for White, non-Hispanics in Gardner (IMR of 11.0), the Western Towns (IMR of 5.9), Leominster (IMR of 3.9) and Fitchburg (IMR of 3.7).

Cigarette Smoking During Pregnancy

Within Massachusetts, 6.7% of births in the 2008 – 2010 period were to women who smoked during pregnancy. Within the MPH region as a whole, 13.2% of births were to women who smoked during pregnancy, almost twice the rate reported in the Commonwealth.

In the MPH service area, all of the reporting regions, except the Eastern Towns, reported higher percentages of births to mothers who smoked cigarettes than did the State. In Gardner 19.5% of births were to mothers who smoked during pregnancy, a rate almost 3 times that of the State. Cigarette smoking rates among pregnant women was also high in Fitchburg with 16.9% and the Western Towns with 15.3% of births to mothers who smoked cigarettes during pregnancy.



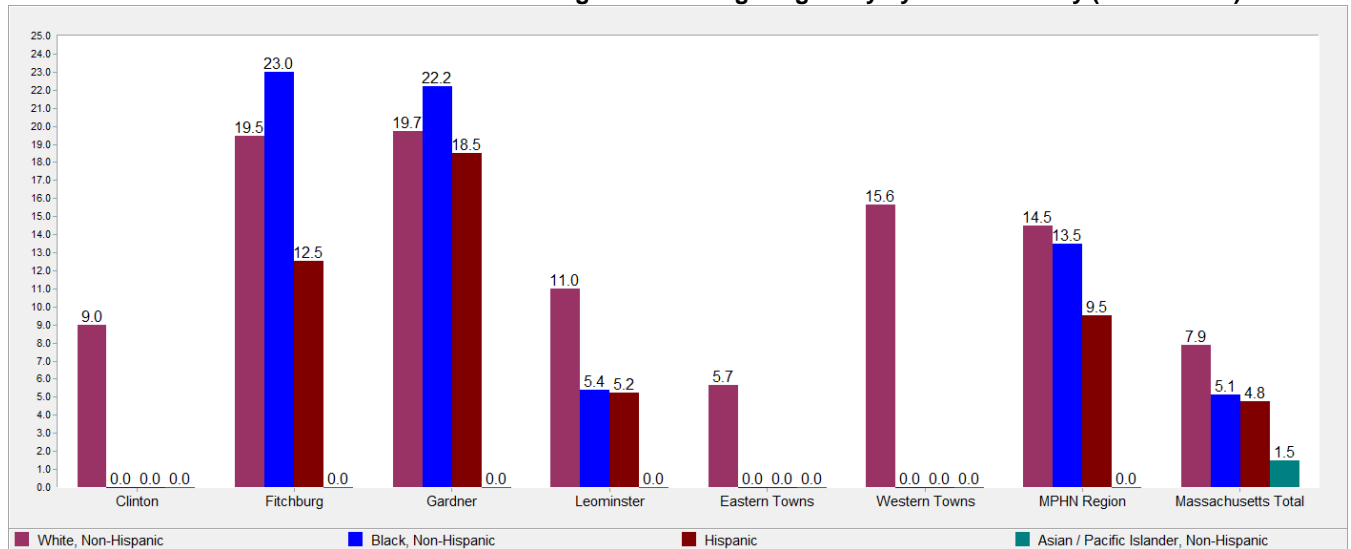
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2020 Goal = Increase abstinence from cigarette smoking among pregnant women to 98.6%

A review of births to women who smoked during pregnancy by racial/ethnic group shows that for the State, the largest percentage was found among White, non-Hispanics at 7.9%, followed by Black, non-Hispanics at 5.1%, Hispanics at 4.8%, and Asians at 1.5% of births. Within the MPH

region as a whole, the percentages were higher for all of the major racial/ethnic groups for which there was sufficient data. The number for Asians was suppressed. Among White, non-Hispanics, 14.5% of births were to women who smoked during pregnancy, 1.8 times the rate found in the Commonwealth for this group. Among Black, non-Hispanics, 13.5% of births were to women who smoked during pregnancy, 2.6 times the rate found in the Commonwealth for this group. Among Hispanics, 9.5% of births were to women who smoked during pregnancy, almost twice the rate found in the Commonwealth for this group.

Percent of Births to Mothers Who Smoked Cigarettes during Pregnancy by Race/Ethnicity (2008 – 2010)

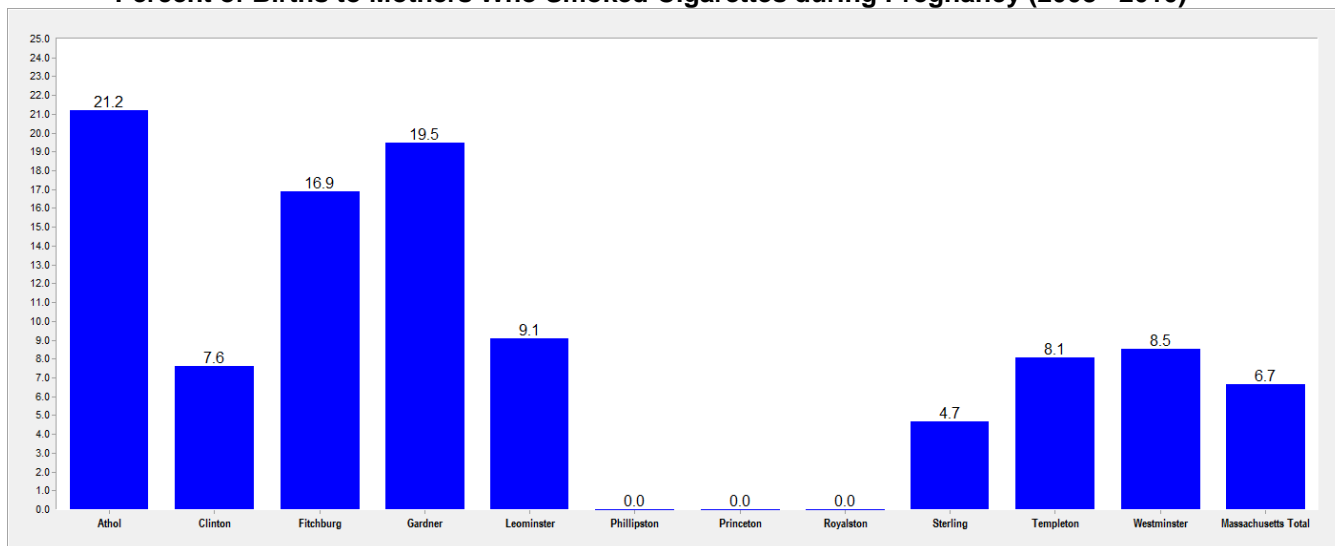


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2020 Goal = Increase abstinence from cigarette smoking among pregnant women to 98.6%

Fitchburg and Gardner reported that among Black non-Hispanics more than 20% of births were to women who smoked during pregnancy. These were the highest rates in the region. Just under 20% of births to White, non-Hispanics in Fitchburg and Gardner were to women who smoked during pregnancy. The highest percentage of births to Hispanic women who smoked during pregnancy was found in Gardner at 18.5%. Within the communities in the MPH region with sufficient data, the lowest percentage of births to women who smoked during pregnancy was reported among Hispanic women in Leominster at 5.2%, followed by Black, non-Hispanic women in Leominster at 5.4% and White, non-Hispanic women in the Eastern Towns at 5.7%.

Percent of Births to Mothers Who Smoked Cigarettes during Pregnancy (2008– 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)
Healthy People 2020 Goal = Increase abstinence from cigarette smoking among pregnant women to 8.6%

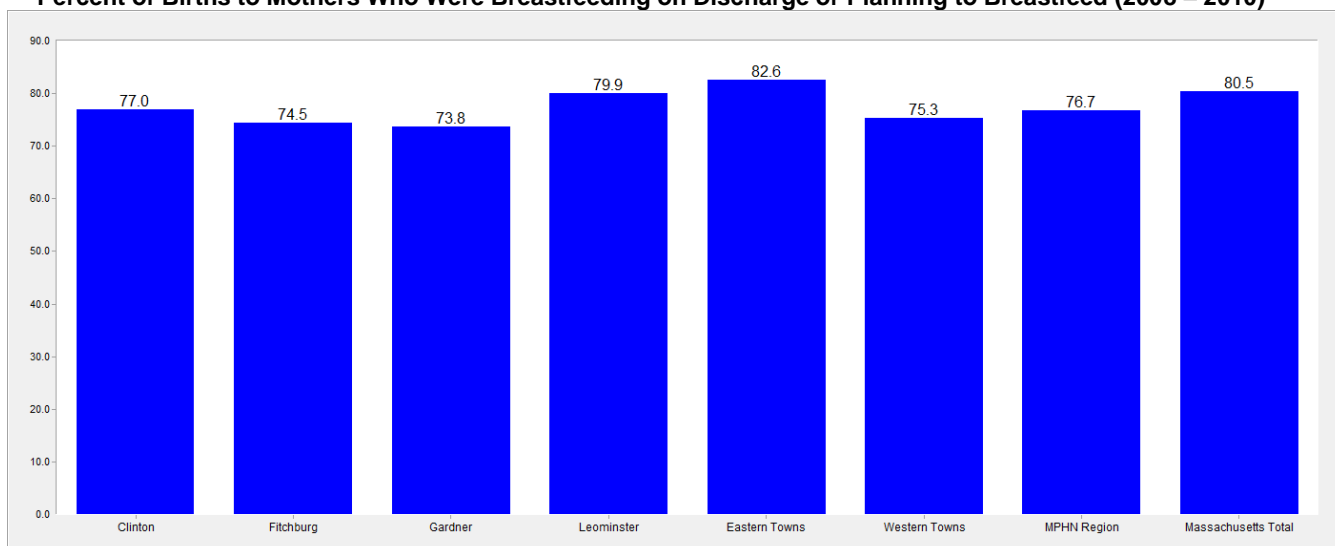
The communities in the MPH service area all reported higher percentages of births to mothers who smoked during the pregnancy than was reported in the Commonwealth, except for Sterling. The highest percentage of births to mothers who smoked during the pregnancy was reported in Athol with 21.2% of births to women who smoked during pregnancy.

Breastfeeding

During the 2008 – 2010 time period, mothers were either breastfeeding at discharge or planning to breastfeed for 80.5% of the births in Massachusetts. Within the MPH region as a whole, the percentage of mothers breastfeeding at discharge or planning to breastfeed was 76.7%, lower than the Commonwealth's figure.

In the MPH service area, all of the reporting regions, except the Eastern Towns, reported lower percentages than the Commonwealth of mothers who were breastfeeding on discharge or planning to breastfeed than the Commonwealth. Gardner reported the lowest breastfeeding percentage, with mothers breastfeeding on discharge or planning to breastfeed for only 73.8% of births, followed by Fitchburg at 74.5% and the Western towns at 75.3%.

Percent of Births to Mothers Who Were Breastfeeding on Discharge or Planning to Breastfeed (2008 – 2010)



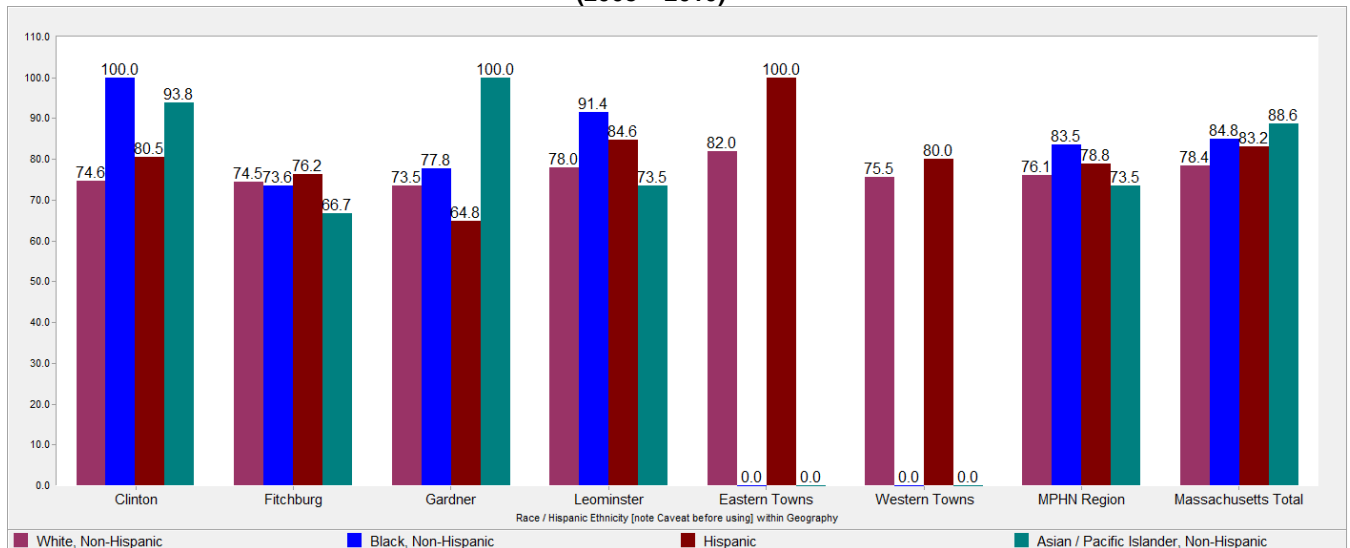
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal: 75% of mothers prior to discharge
Health People 2020 Goal: 81.9% of infants ever breastfed

Within the Commonwealth, the highest percentage of births to mothers who were breastfeeding at discharge or planning to breastfeed was found among Asians at 88.6%, followed Black, non-Hispanics at 84.8%, Hispanics at 83.2% and White, non-Hispanics at 78.4%. Within the MPH Region as a whole, the percentages were somewhat lower for each of these major racial/ethnic groups. However, it should be noted that in the MPH area, the highest percentage of births to mothers who were breastfeeding at discharge or planning to breastfeed was found among Black, non-Hispanics at 83.5%, followed by Hispanics at 78.8%, White, non-Hispanics at 76.1% and Asians at 73.5%.

The breastfeeding percentages were quite varied among the racial/ethnic groups in the different regions, with 100% of births to women who were breastfeeding on discharge or planning to breastfeed reported among Black, non-Hispanics in Clinton, Asians in Gardner and Hispanics in the Eastern Towns. More than 90% of births to Asians in Clinton and Black, non-Hispanics in Leominster were to mothers who were breastfeeding on discharge or planning to breastfeed. Among regions with sufficient data, the lowest percentages of breastfeeding were found Hispanics in Gardner and Asians in Fitchburg with mothers breastfeeding on discharge or planning to breastfeed for less than 67% of births. The figures for Black, non-Hispanic and Asian births in the Eastern and Western Towns were suppressed.

Percent of Births to Mothers Who Were Breastfeeding on Discharge or Planning to Breastfeed by Race/Ethnicity (2008 – 2010)

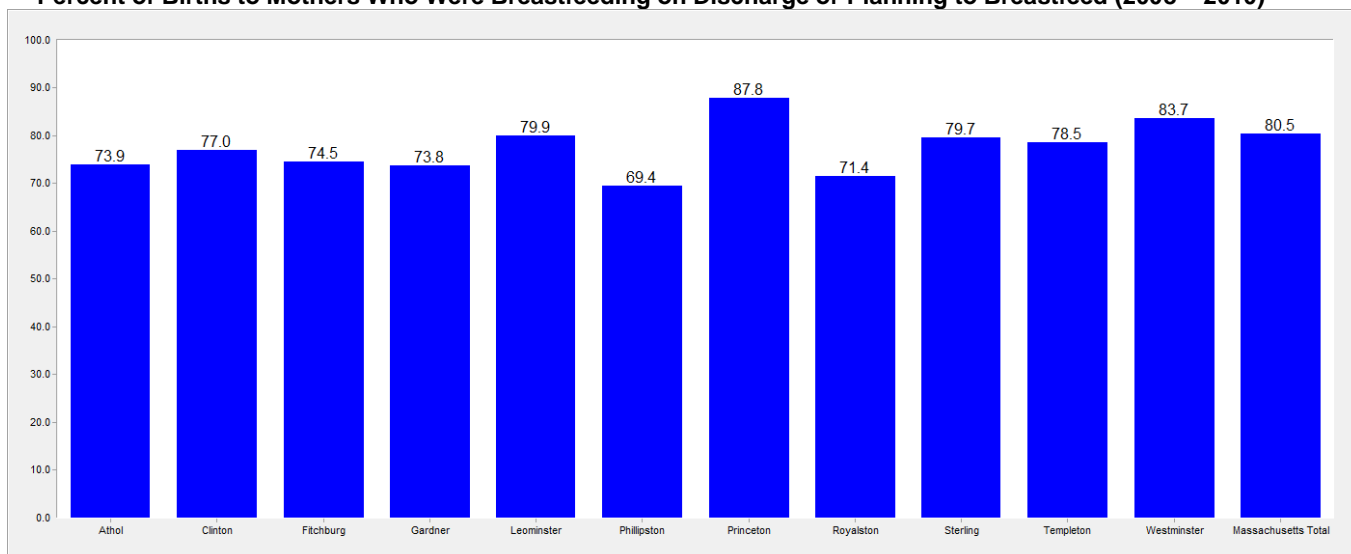


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal: 75% of mothers prior to discharge
Health People 2020 Goal: 81.9% of infants ever breastfed

Within the individual communities in the MPHN region, the highest percent of births to women who were breastfeeding on discharge or planning to breastfeed were reported in Princeton at 87.8% and Westminster at 83.7%, both of which were higher than that of the Commonwealth as a whole. The lowest breastfeeding percentages were found in Phillipston at 69.4% and Royalston at 71.4%.

Percent of Births to Mothers Who Were Breastfeeding on Discharge or Planning to Breastfeed (2008 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal: 75% of mothers prior to discharge

Health People 2020 Goal: 81.9% of infants ever breastfed

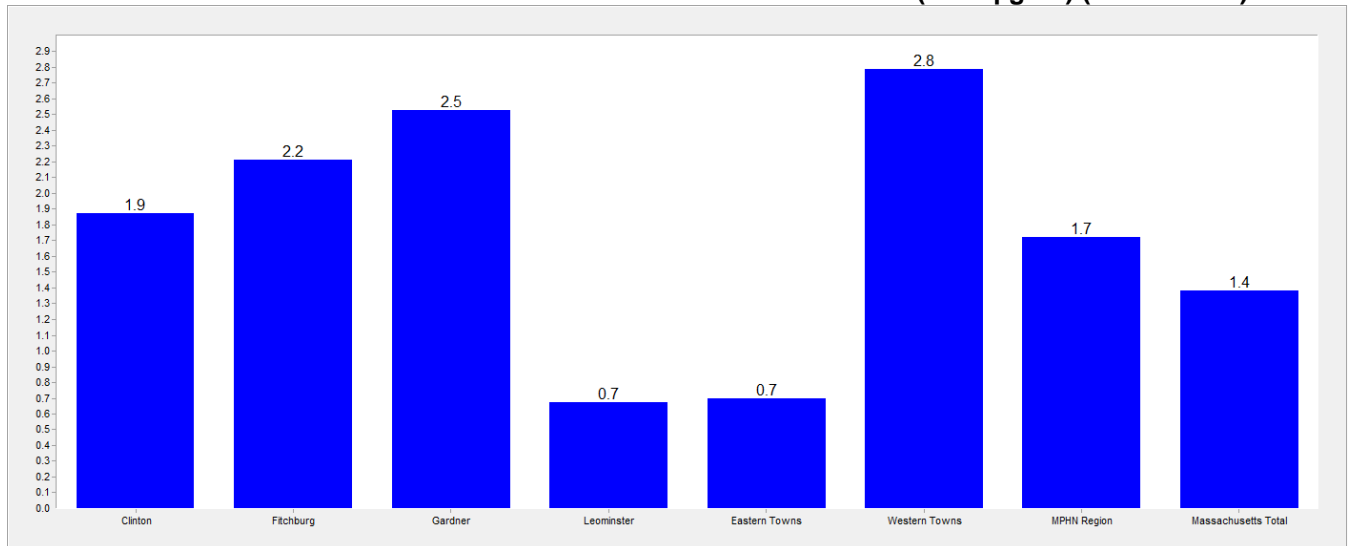
Lead Poisoning

Within Massachusetts in the 2008– 2010 time period, 1.4% of the children screened for lead paint had elevated blood lead levels (defined as $\geq 15 \mu\text{g/dL}$). Within the MPH region, this percentage was 1.7%, 21.4% higher than that of the Commonwealth.

Within the reporting regions in the MPH service area, the Western Towns had the highest percentage of children with elevated blood lead levels at 2.8%, twice the percentage reported by the Commonwealth. Gardner at 2.5% and Fitchburg at 2.2% also had high percentages of children screened who had elevated blood lead levels. Not surprisingly, these regions contain communities with a high percentage of housing units built before 1970 when lead paint was banned in the United States. Seventy-five percent of Fitchburg's housing units, 67% of Gardner's housing units and 67% of Athol's housing units were built before 1970.

The lowest percentages of children with elevated blood lead levels were found in Leominster and the Eastern Towns, both at 0.7% of children screened. However, other than Fitchburg, these observations are based on small actual numbers (of 5 or less) and should be considered with caution.

Percent of Children Screened Who Had Elevated Blood Lead Levels (≥ 15 $\mu\text{g/dL}$) (2008 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

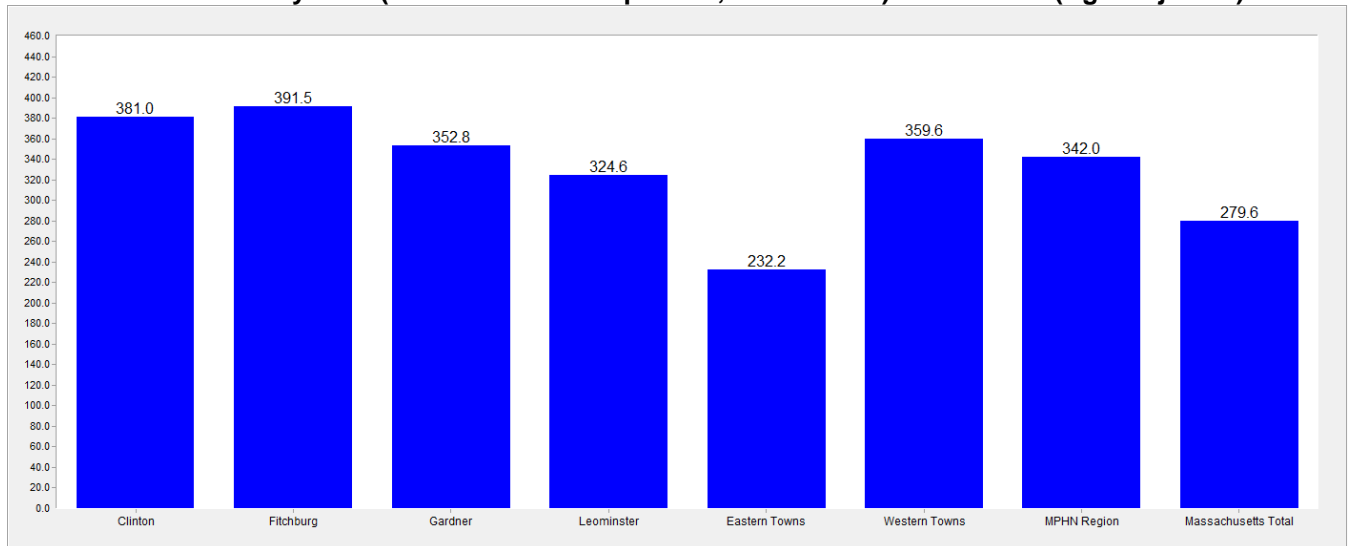
MORTALITY

Premature Mortality

Premature mortality is defined as deaths occurring before the age of 75. The premature mortality rate (PMR) is the number of premature deaths per 100,000 persons. An age-adjusted rate uses a direct age-adjustment approach and is designed to minimize the effects of differences in age distribution when comparing rates for different populations.

According to the MDPH, Health Information, Statistics, Research and Evaluation Bureau, the PMR is an excellent, single measure of the health status of a community. PMR is related not only to health care, but also to the social determinants of health such as socioeconomic status, housing, educational levels, environmental conditions, and racism, as well as risk factors such as smoking, substance abuse, and obesity.

Premature Mortality Rate (Premature Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

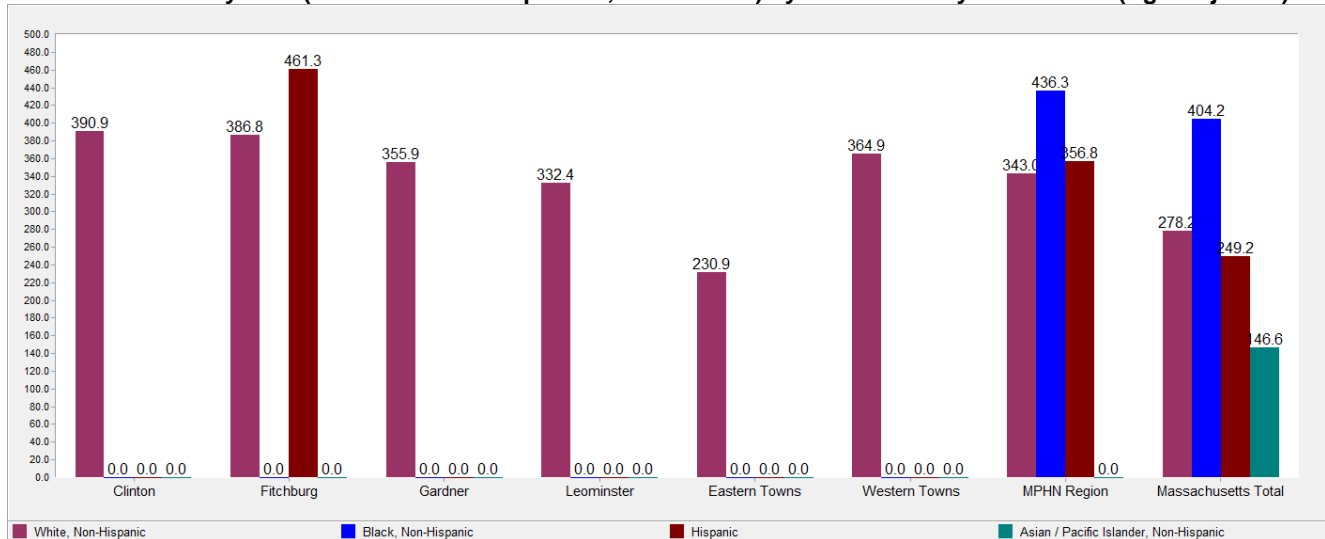
Within Massachusetts, the age-adjusted PMR for the 2008-2010 time frame was 279.6. Within the MPH region, the age adjusted PMR was 342 or 1.2 times that of the Commonwealth.

Most of the reporting regions had age-adjusted Premature Mortality Rates higher than that of the State. The highest PMR was reported in Fitchburg at 391.5, followed by Clinton at 381 and the Western Towns at 359.6. The only reporting region in the MPH service area with an age-adjusted Premature Mortality Rate lower than that of the Commonwealth was the Eastern Towns at 232.2.

The age-adjusted Premature Mortality Rate in Massachusetts varied by racial/ethnic group over the 2008 – 2010 time period. The highest age-adjusted PMR was reported for Black, non-Hispanics at 404.2, followed by White, non-Hispanics at 278.2, Hispanics at 249.2, and Asians at 146.6. Within the MPH region as a whole, the PMR was higher for each of these major racial/ethnic groups. In the MPH area, the highest age adjusted PMR was reported for Black, non-Hispanics at 436.3, followed by Hispanics at 356.8 and White, non-Hispanics at 343. The PMR for Asians in the MPH region was suppressed due to small numbers.

Within the reporting regions, the highest age-adjusted Premature Mortality Rates were reported for Hispanics in Fitchburg at 461.3, followed by White, non-Hispanics in Clinton at 390.9 and White, non-Hispanics in Fitchburg at 386.8. The lowest Age-Adjusted Premature Mortality Rates were reported among White, non-Hispanics in the Eastern Towns and in Leominster at 230.9 and 332.4, respectively.

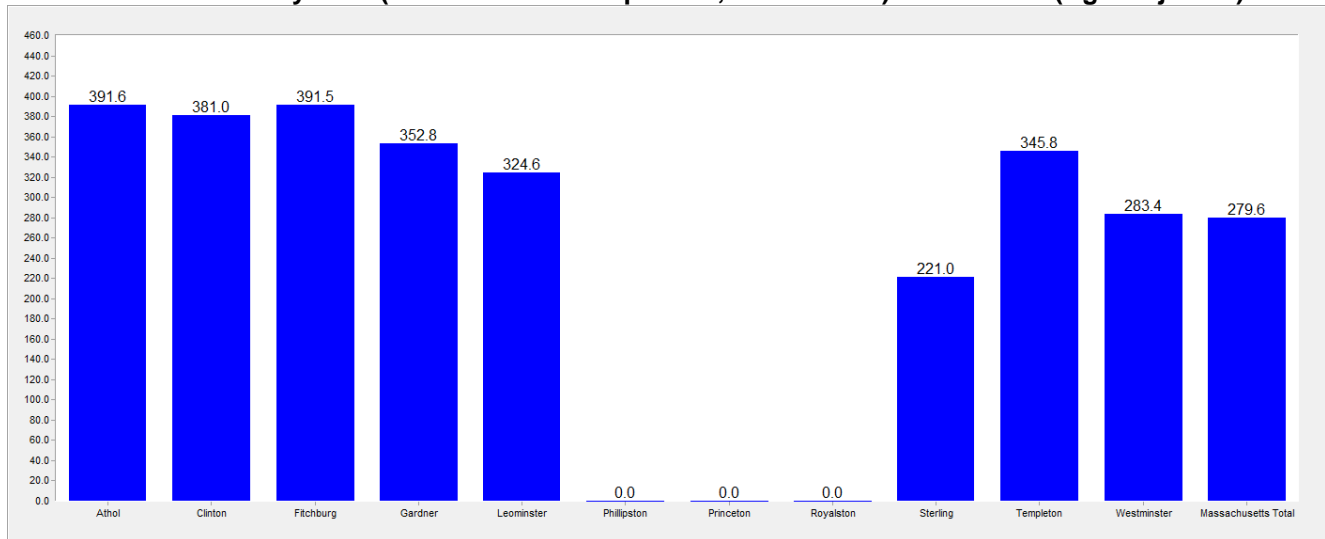
Premature Mortality Rate (Premature Deaths per 100,000 Persons) by Race/Ethnicity 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Most of the individual communities in the MPHN service area had age-adjusted Premature Mortality Rates higher than that of the State. Sterling was the only MPHN community to report an age adjusted PMR lower than the State at 221. The highest age-adjusted PMRs in the MPHN region were reported in Athol at 391.6 and Fitchburg at 391.5. The PMRs for Phillipston, Princeton and Sterling were suppressed.

Premature Mortality Rate (Premature Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)

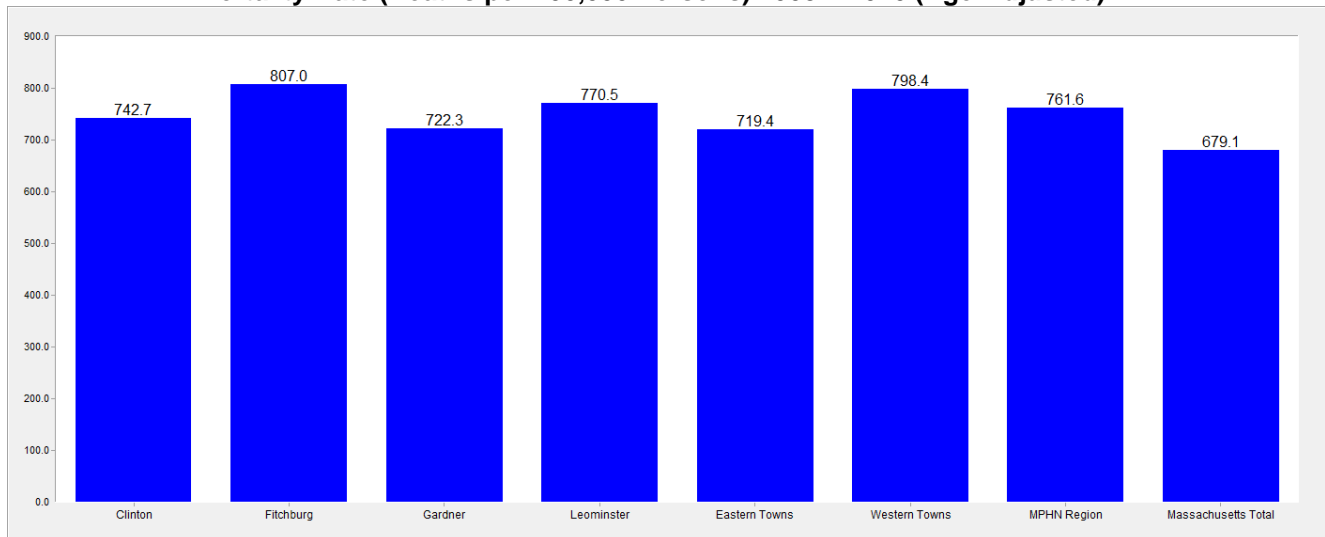


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Mortality Rate

The Mortality Rate is defined as the number of deaths per 100,000 people per year. The Mortality Rates reported here are age-adjusted to enable comparisons among reporting regions.

Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)

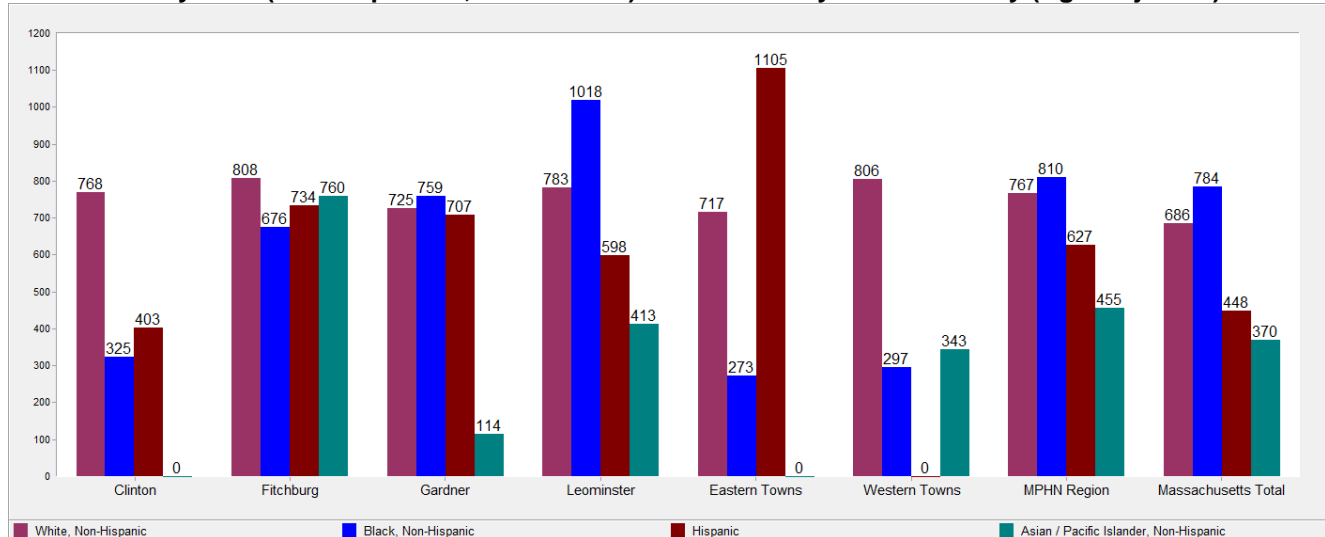


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

During the 2008 – 2010 time period, the age-adjusted Mortality Rate in Massachusetts was 679.1. Within the MPH region, the age adjusted Mortality Rate was higher than that of the Commonwealth at 761.6.

All of the reporting regions in the MPH service area had age-adjusted Mortality Rates higher than the Commonwealth, with the highest rate reported in Fitchburg at 807, followed by the Western Towns at 798.4. The lowest Mortality Rates were reported in the Eastern Towns (719.4) and Gardner (722.3).

Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 by Race/Ethnicity (Age-Adjusted)



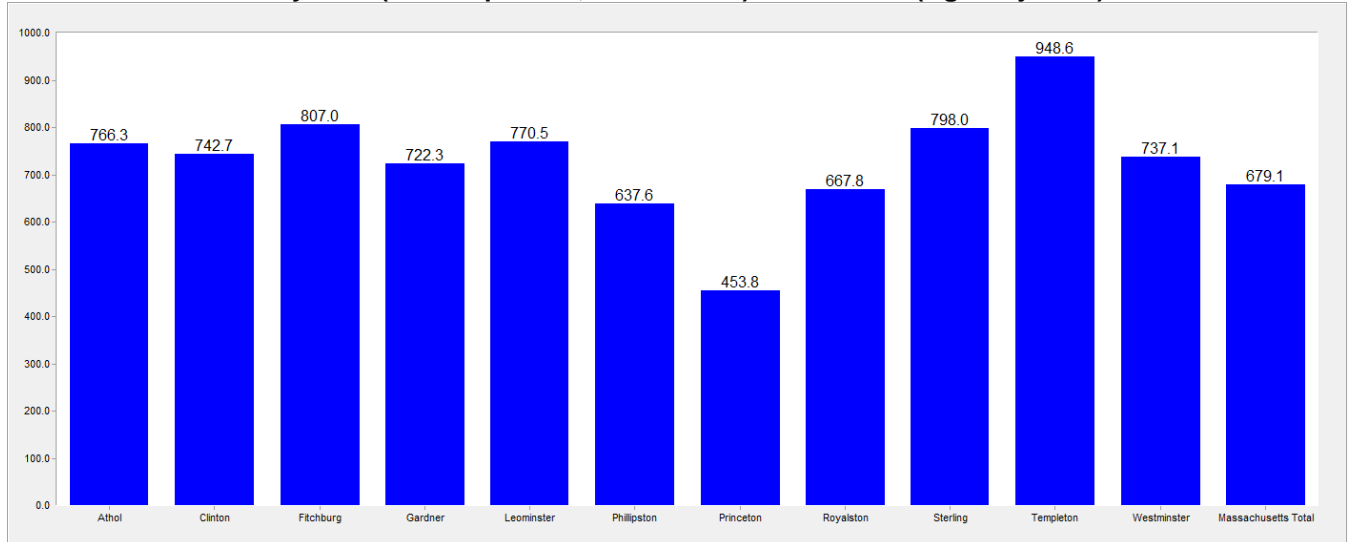
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the age-adjusted Mortality Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 784, followed by White, non-Hispanics at 686, Hispanics at 448 and Asians at 370. Within the MPH region as a whole, the age adjusted Mortality Rate was higher for each of these major racial/ethnic groups. In the MPH area, the highest age adjusted Mortality Rate was reported for Black, non-Hispanics at 810, followed by White, non-Hispanics at 767, Hispanics at 627 and Asians at 455.

The highest age adjusted Mortality Rate in the region was reported for Hispanics in the Eastern towns at 1105. However, this number is based on a small number of actual cases. Black, non-Hispanics in Leominster also experienced an age adjusted Mortality Rate of over 1000 at 1018, approximately 1.3 times the age adjusted Mortality Rate of Black, non-Hispanics in the Commonwealth and in the MPH region. The number of actual cases here is sufficient to cause concern over this rate.

The lowest age-adjusted Mortality Rates in the MPH region were reported for Asians in Gardner at 114 and for Black, non-Hispanics in the Eastern Towns at 273 and in the Western Towns at 297. However, these numbers are based on a small number of actual cases.

Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



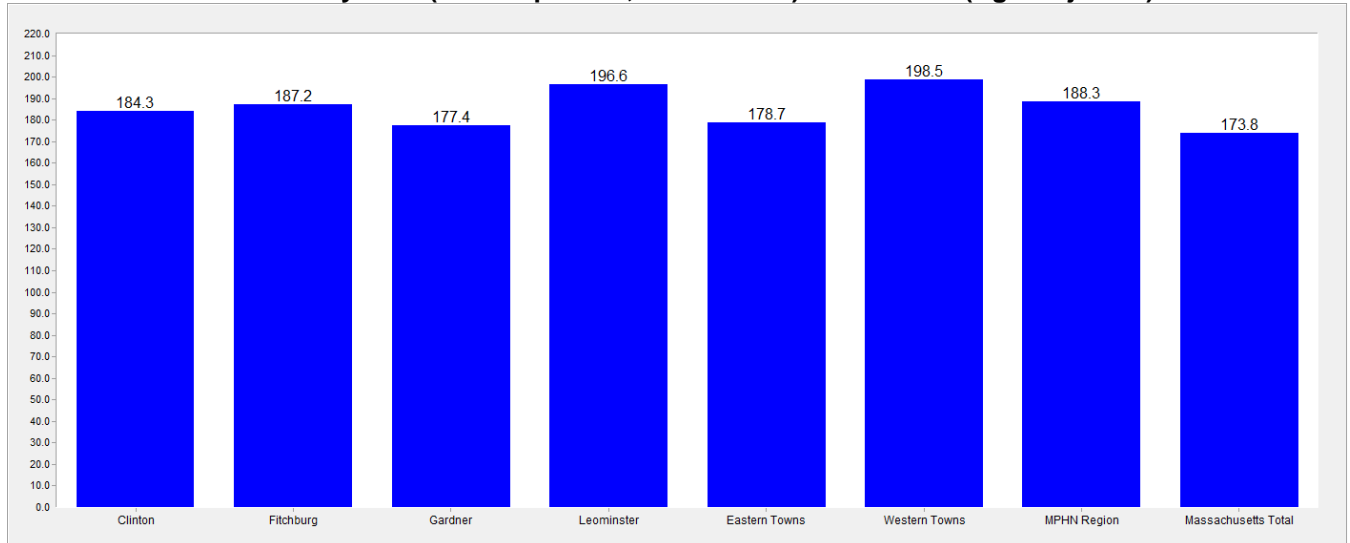
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Most of the communities within the MPHN region had age-adjusted Mortality Rates greater than the State, with the highest rate of 948.6 reported in Templeton, followed by 807 in Fitchburg and 798 in Sterling. Age-adjusted Mortality Rates above 750 were also reported in Leominster (770.5) and Athol (766.3). The lowest age-adjusted Mortality Rate in the area was 453.8 reported in Princeton. Two other communities, Phillipston (637.6) and Royalston (667.8) also had age adjusted Mortality Rates lower than that of the Commonwealth.

Cancer Mortality Rate

Within the qualitative assessment, cancer was cited as a top health concern within four of the 13 Focus Groups. The fact that cancer was a salient issue for participants is not surprising given the relatively high Cancer Mortality Rates in the region. During the 2008 – 2010 time period, the age-adjusted Cancer Mortality Rate in Massachusetts was 173.8. Within the MPHN region, the age adjusted Cancer Mortality Rate was higher than that of the Commonwealth at 188.3.

Cancer Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 159.9 per 100,000

Healthy People 2020 Goal = 160.6 per 100,000

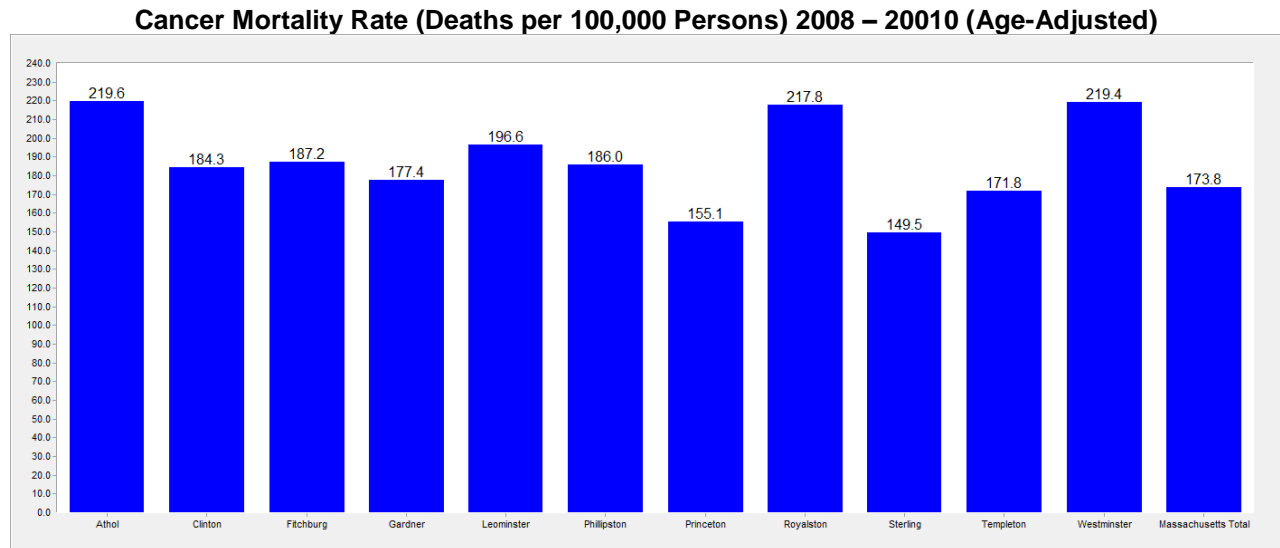
All of the reporting regions in the MPH Region service area had age-adjusted Cancer Mortality Rates higher than the State, with the highest rates reported in the Western Towns at 198.5, followed by Leominster at 196.6 and Fitchburg at 187.2. The lowest Cancer Mortality Rate in the region was reported in Gardner at 177.4.

Within the Commonwealth, the age-adjusted Cancer Mortality Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 191, followed by White, non-Hispanics at 177, Hispanics at 108 and Asians at 107. Within the MPH Region as a whole, the age-adjusted Cancer Mortality Rate was higher for each of these major racial/ethnic groups, except for Asians. In the MPH area, the highest age-adjusted Cancer Mortality Rate was reported for Black, non-Hispanics at 233, followed by White, non-Hispanics at 191, Hispanics at 116 and Asians at 78.

The age-adjusted Cancer Mortality Rates for the racial/ethnic groups within the reporting regions cannot be reported here due to the fact that the rates would be suspect as they are based on a small number of actual cases.

Most of the communities in the MPH region had age-adjusted Cancer Mortality Rates greater than the State, with the highest rate of 219.6 reported in Athol. Age-adjusted Cancer Mortality Rates above 200 were also reported in Westminster (219.4) and Royalston (217.8). The lowest age-adjusted Cancer Mortality Rate was found in Sterling at 149.5. Age-adjusted Cancer Mortality rates below that of the Commonwealth as a whole were also reported in Princeton at 155.1 and Templeton at 171.8.

The numbers are too small to do an analysis of Cancer Mortality Rates by racial/ethnic group at the community level.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 159.9 per 100,000

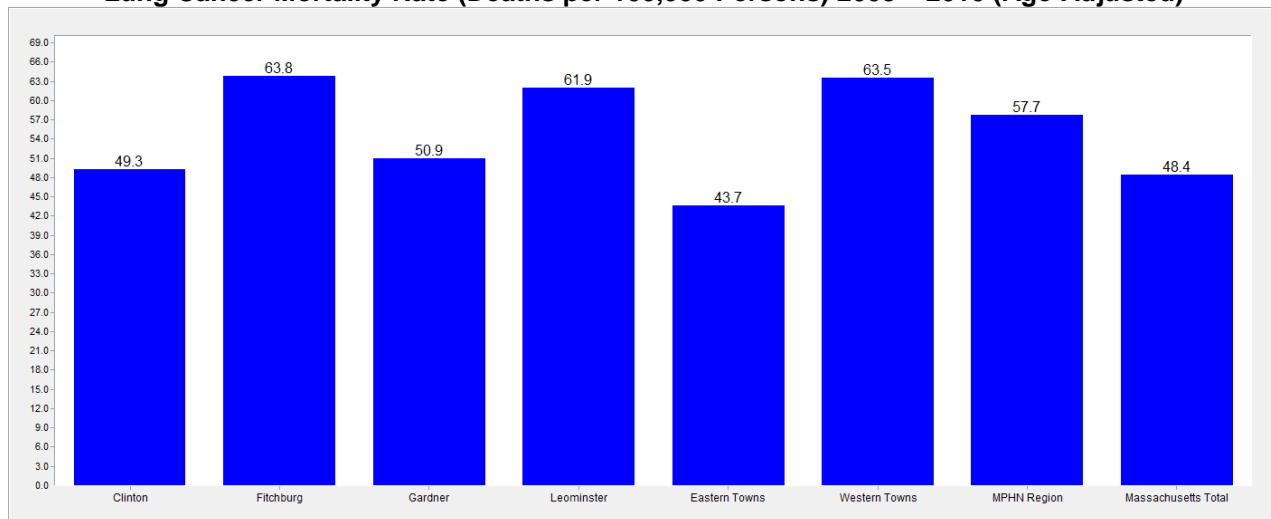
Healthy People 2020 Goal = 160.6 per 100,000

Lung Cancer Mortality Rate

During the 2008 – 2010 time period, the age-adjusted Lung Cancer Mortality Rate in Massachusetts was 48.4. Within the MPH region, the age adjusted Lung Cancer Mortality Rate was higher than that of the Commonwealth at 57.7

Many of the reporting regions in the MPH service area had age-adjusted Lung Cancer Mortality Rates higher than the State, with the highest rate reported in Fitchburg at 63.8, followed by the Western Towns at 63.5 and Leominster at 61.9. The lowest Lung Cancer Mortality Rates were reported in the Eastern Towns at 43.7 and Clinton at 49.3.

Lung Cancer Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

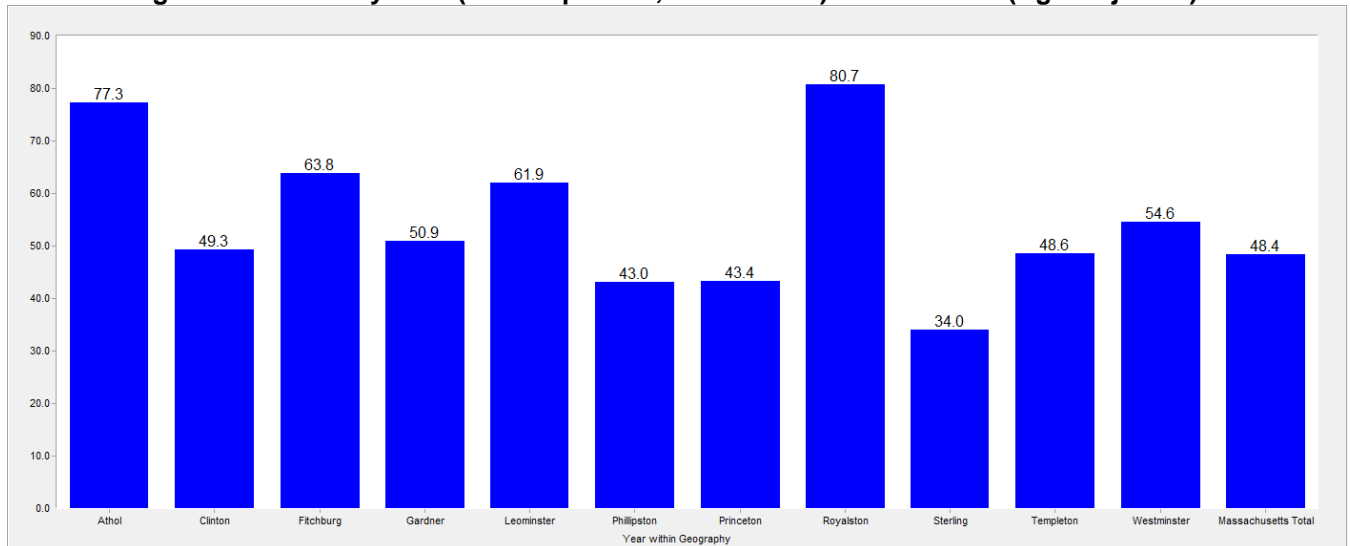
Healthy People 2010 Goal = 44.9 per 100,000

Healthy People 2020 Goal = 45.5 per 100,000

Within the Commonwealth, the age-adjusted Lung Cancer Mortality Rate varied by racial/ethnic group, with the highest rates found among White, non-Hispanics at 50.5, followed by Black, non-Hispanics at 37.5, Asians at 27.1, and Hispanics at 18.9. The numbers are too small to do an analysis by racial/ethnic group at a lower level, including at the overall MPHNN level.

Most of the communities in the MPHNN region had age-adjusted Lung Cancer Mortality Rates higher than that of the Commonwealth. However, the high rate in Royalston (80.7) and the low rates in Sterling (34), Phillipston (43) and Princeton (43.4) must be considered with caution due to the fact that they are based on small numbers of actual cases. Several cities and towns did experience age-adjusted Lung Cancer Mortality Rates over 60 during this time period, including Athol at 77.3, Fitchburg at 63.8 and Leominster at 61.9. The lowest credible age-adjusted Lung Cancer Mortality Rates were reported in Templeton at 48.6 and Clinton at 49.3, both slightly higher than the rate within the State as a whole.

Lung Cancer Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 44.9 per 100,000

Healthy People 2020 Goal = 45.5 per 100,000

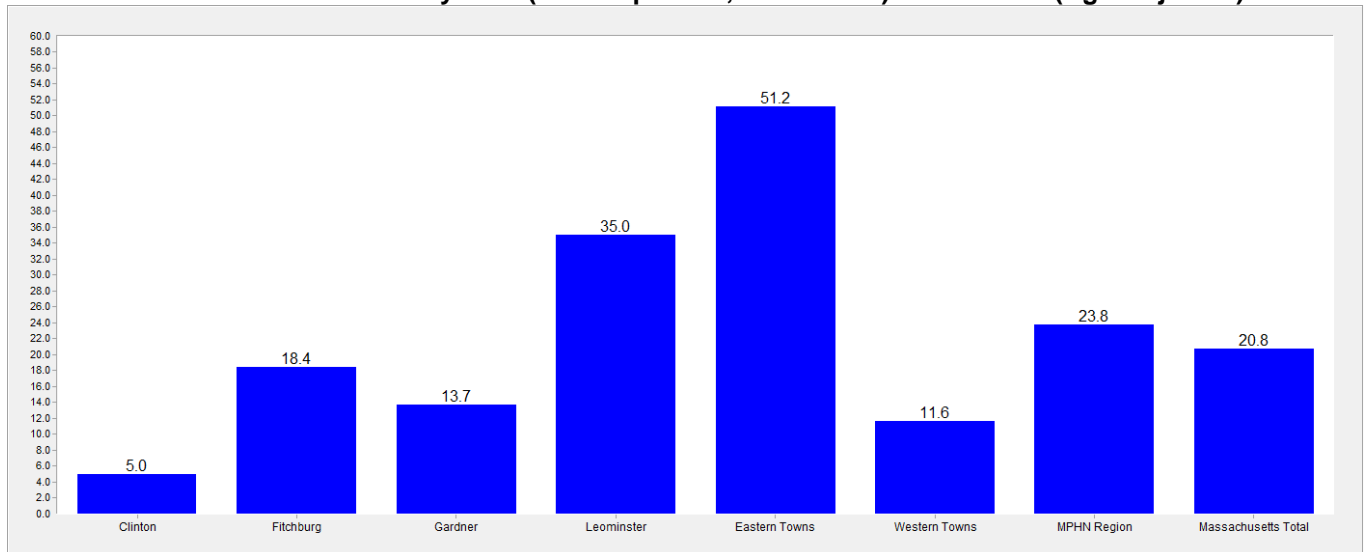
Breast Cancer Mortality Rate

In the 2008 – 2010 time period, the age-adjusted Breast Cancer Mortality Rate for women in Massachusetts was 20.8. Within the MPH region, the age adjusted Breast Cancer Mortality Rate for women was higher than that of the Commonwealth at 23.8

Two of the reporting regions in the MPH service area had age-adjusted Breast Cancer Mortality Rates for women which were higher than those of the Commonwealth as a whole, with the highest rate reported in the Eastern Towns at 51.2, a rate almost 2.5 times that of the State. A high age-adjusted Breast Cancer Mortality Rate for women was also reported in Leominster at 35 or 1.7 times the rate reported by the Commonwealth.

The lowest credible Breast Cancer Mortality Rate for women in the MPH region was reported in Fitchburg at 18.4. The rates reported in Clinton, Gardner and the Western Towns are suspect due to the fact that they are based on small numbers of actual cases.

Female Breast Cancer Mortality Rate (Deaths per 100,000 Women) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 22.3 per 100,000

Healthy People 2020 Goal = 20.6 per 100,000

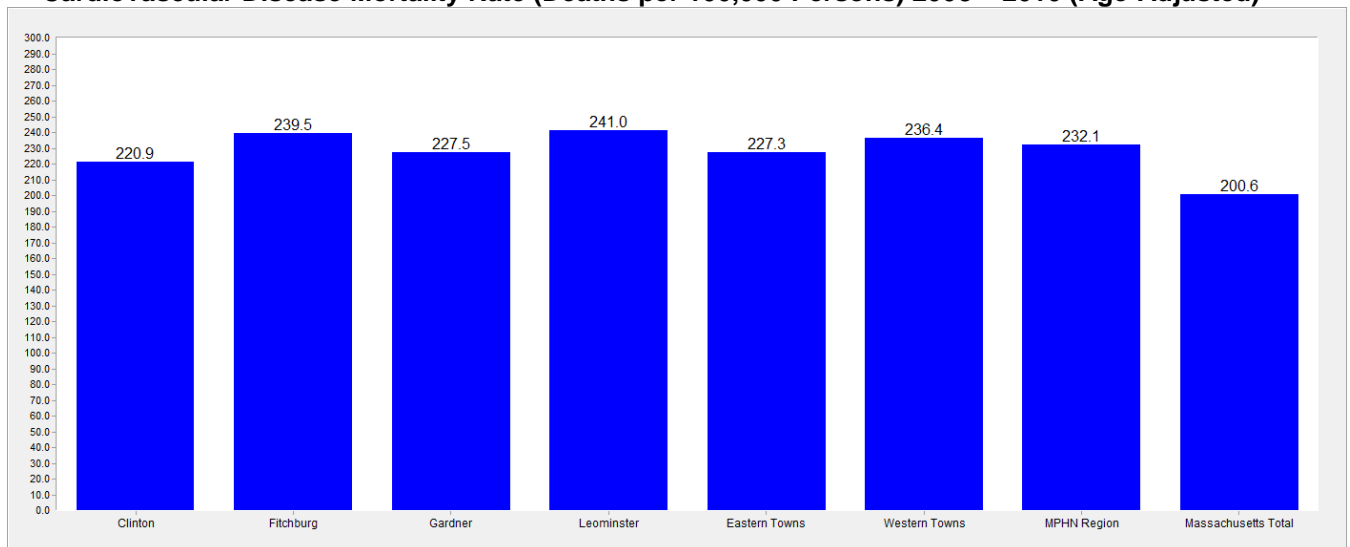
A breakdown of age-adjusted Breast Cancer Mortality Rates for women for the 2008 – 2010 period for the Commonwealth by race/ethnicity indicates that Black, non-Hispanics had the highest rate at 26.4, followed by White, non-Hispanics at 21.1, and Hispanics and Asians, both at 9.9. The actual numbers are too small to do an analysis by race/ethnicity at a lower level, including at the MPH region level. In addition, the numbers are also too small to do an analysis of Breast Cancer Mortality Rates by city/town.

Cardiovascular Disease Mortality Rate

All of the definitions of the disease categories in this Mortality Section are sourced from MassCHIP and are based on International Classification of Diseases, 10th Edition (ICD-10) codes. The ICD-10 coding methodology is published by the World Health Organization and is designed to promote international comparability in the collection, processing, classification, and presentation of mortality statistics. This includes providing a format for reporting causes of death on the death certificate.

The mortality statistics reported earlier in this section were self-explanatory and did not require further definition. However, clarification of what is meant here by “Cardiovascular Disease” is warranted. According to the Centers for Disease Control (CDC), cardiovascular disease (commonly referred to as heart disease) is the leading cause of death for both men and women in the United States. The most common type of Cardiovascular Disease in the United States is coronary artery disease, which can cause heart attack, angina, heart failure and arrhythmias. High blood pressure, high LDL cholesterol, and smoking are key risk factors for heart disease. Several other medical conditions and lifestyle choices can also put people at a higher risk for heart disease, including diabetes, overweight and obesity, poor diet, physical inactivity and excessive alcohol use.

Cardiovascular Disease Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 166.0 per 100,000

Healthy People 2020 Goal = 100.8 per 100,000

During the 2008 – 2010 time period, the age-adjusted Cardiovascular Disease Mortality Rate in Massachusetts was 200.6. Within the MPH region, the age adjusted Cardiovascular Disease Mortality Rate was higher than that of the Commonwealth at 232.1

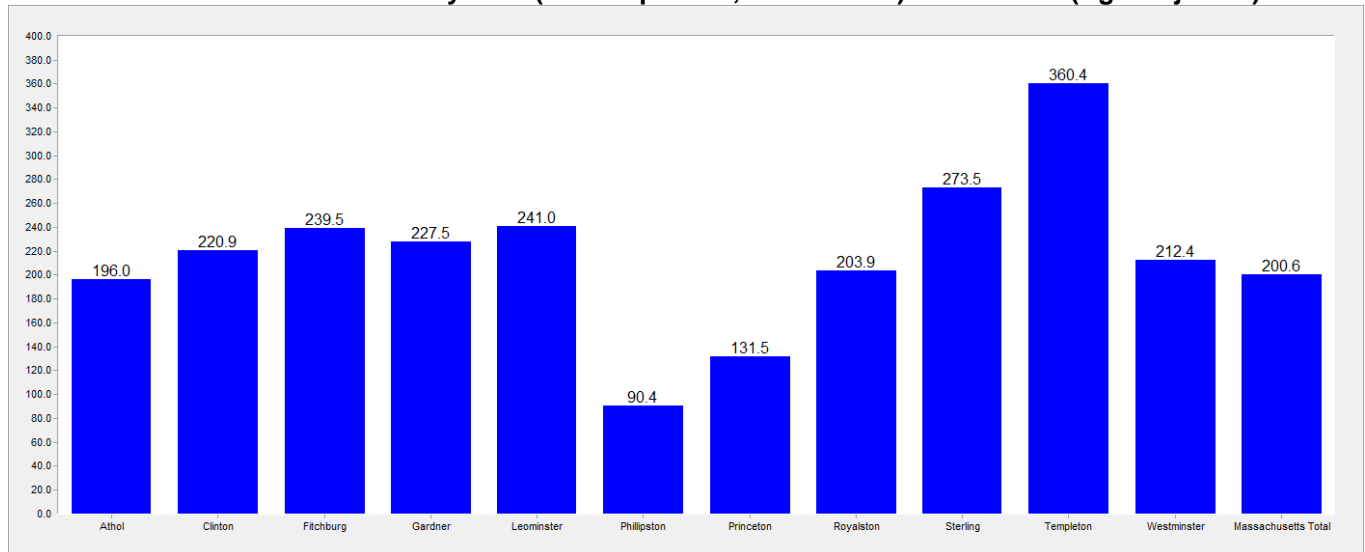
All of the reporting regions in the MPH service area reported age-adjusted Cardiovascular Disease Mortality Rates higher than that of the Commonwealth, with the highest rate reported in Leominster at 241, followed by Fitchburg at 239.5 and the Western Towns at 236.4. The lowest age-adjusted Cardiovascular Disease Mortality Rates were reported in the Clinton (220.9), the Eastern Towns (227.3) and Gardner (227.5), all of which were higher than the overall rate within the State.

Within the Commonwealth, the age-adjusted Cardiovascular Disease Mortality Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 242.5, followed by White, non-Hispanics at 203.1, Hispanics at 109.9 and Asians at 99.5. Black, non-Hispanics also experienced the highest Cardiovascular Disease Mortality Rates in the MPH region as a whole, with a rate of 307.3. However this number must be viewed with caution since it is based on a relatively small number of actual cases. The age-adjusted Cardiovascular Disease Mortality Rates for White, non-Hispanics and for Hispanics in the MPH region were high as compared with those of the State at 233.5 and 160.5, respectively. The age-adjusted Cardiovascular Disease Mortality Rate for Asians in the MPH region is suspect due to a small number of actual cases.

Most of the communities in the MPH region had age-adjusted Cardiovascular Disease Mortality Rates greater than the State, with the highest rate of 360.4 reported in Templeton. This figure is 1.8 times the rate reported by the State as a whole. Age-adjusted Cardiovascular Disease Mortality

Rates above 230 were also reported in Sterling (273.5), Leominster (241) and Fitchburg (239.5). The age-adjusted Cardiovascular Disease Mortality Rates for Phillipston, Princeton and Royalston must be discounted due to the small number of actual cases. The lowest credible age-adjusted Cardiovascular Disease Mortality Rate in the MPH region was reported in Athol at 196.

Cardiovascular Disease Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 166.0 per 100,000

Healthy People 2020 Goal = 100.8 per 100,000

Cerebrovascular Disease Mortality Rate

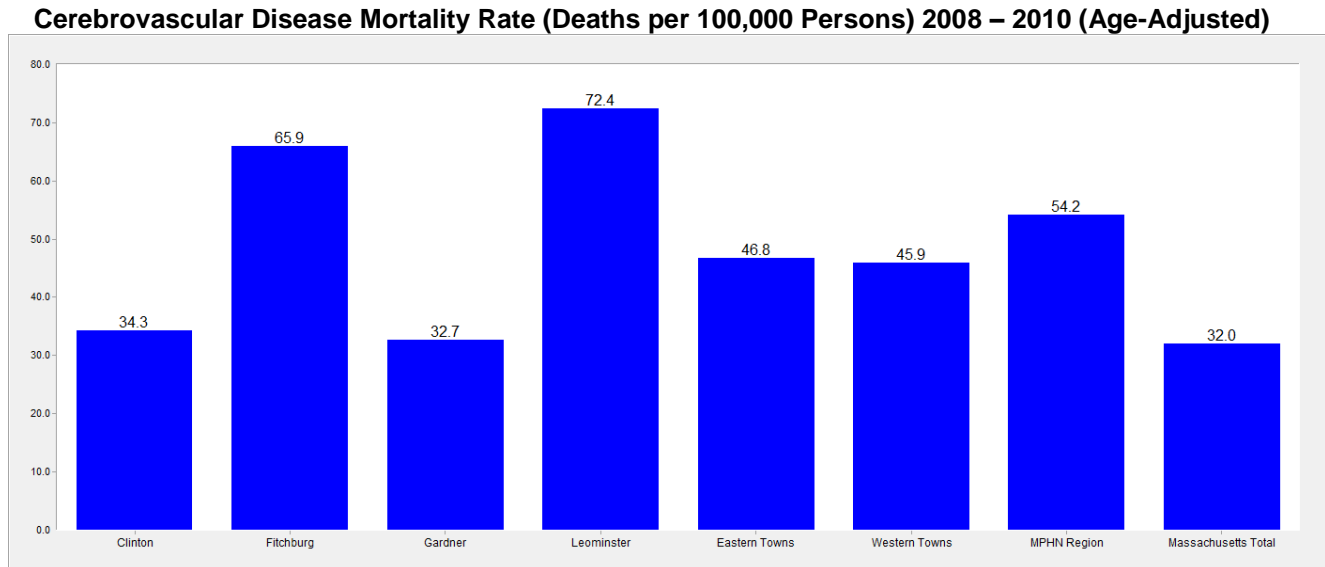
A definition of what is meant by “Cerebrovascular Disease” is warranted. Cerebrovascular disease includes conditions that affect circulation of blood to the brain, such as stroke, hemorrhage or temporarily interrupted blood flow. According to the CDC, stroke is the most common form of cerebrovascular disease and a leading cause of death and serious long term disability in the United States. High blood pressure, high LDL cholesterol, and smoking are key risk factors for stroke. Several other medical conditions and lifestyle choices can also put people at a higher risk for heart disease, including diabetes, overweight and obesity, poor diet, physical inactivity and excessive alcohol use.

In the 2008 – 2010 time period, the age-adjusted Cerebrovascular Disease Mortality Rate in Massachusetts was 32. Within the MPH region, the age adjusted Cerebrovascular Disease Mortality Rate was higher than that of the Commonwealth at 54.2 or 1.7 times that of the State as a whole.

All of the reporting regions in the MPH service area had age-adjusted Cerebrovascular Disease Mortality Rates higher than the State, with the highest rate reported in Leominster at 72.4, followed by Fitchburg at 65.9. The lowest age-adjusted Cerebrovascular Disease Mortality Rates were

reported in Gardner at 32.7 and in Clinton at 34.3, both slightly higher than the rate reported by the State.

Within the Commonwealth, the age-adjusted Cerebrovascular Disease Mortality Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 44.5, followed by White, non-Hispanics at 31.7, Asians at 28.9 and Hispanics at 22.2. The numbers are too small to do an analysis by race/ethnicity at a lower level, including at MPH region level.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

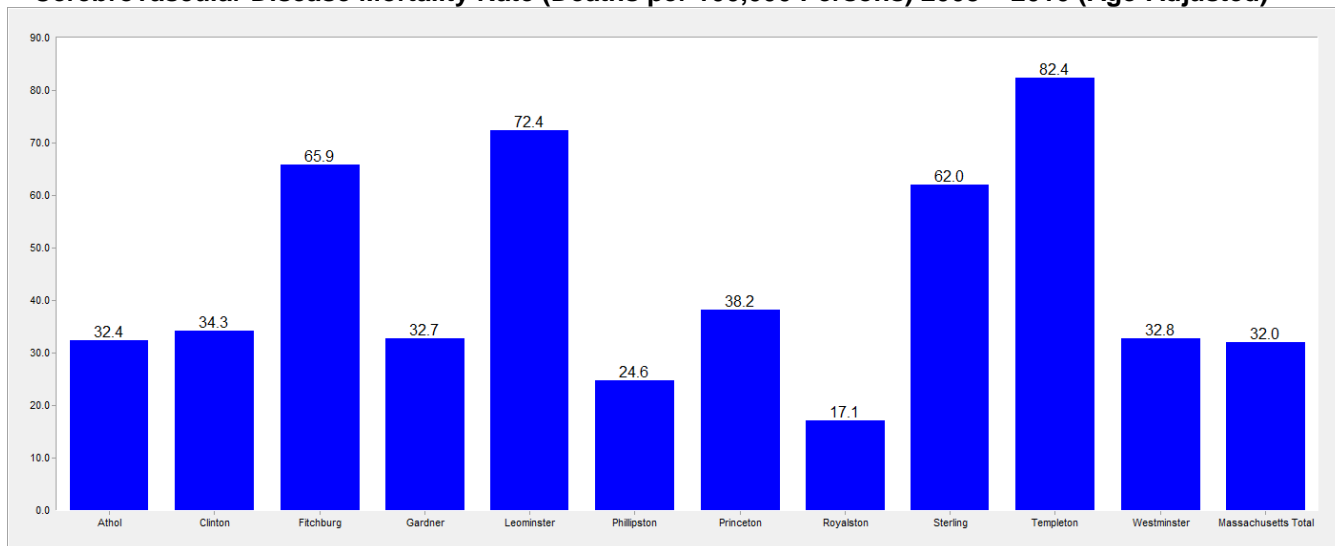
Healthy People 2010 Goal = 48.0 per 100,000

Healthy People 2020 Goal = 33.8 per 100,000

Most of the communities in the MPH region had Cerebrovascular Disease Mortality Rates higher than the State, with the highest rate of 82.4 (or 2.6 times the rate for the Commonwealth) reported in Templeton. Credible age-adjusted Cerebrovascular Disease Mortality Rates above 50 were also reported in Leominster (72.4), Fitchburg (65.9) and Sterling (62).

The age-adjusted Cerebrovascular Disease Mortality Rates for Phillipston, Princeton, Royalston and Westminster must be discounted due to the small number of actual cases. The lowest credible age-adjusted Cerebrovascular Disease Mortality Rates in the MPH region were reported in Athol at 32.4, Gardner at 32.7 and Clinton at 34.3.

Cerebrovascular Disease Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

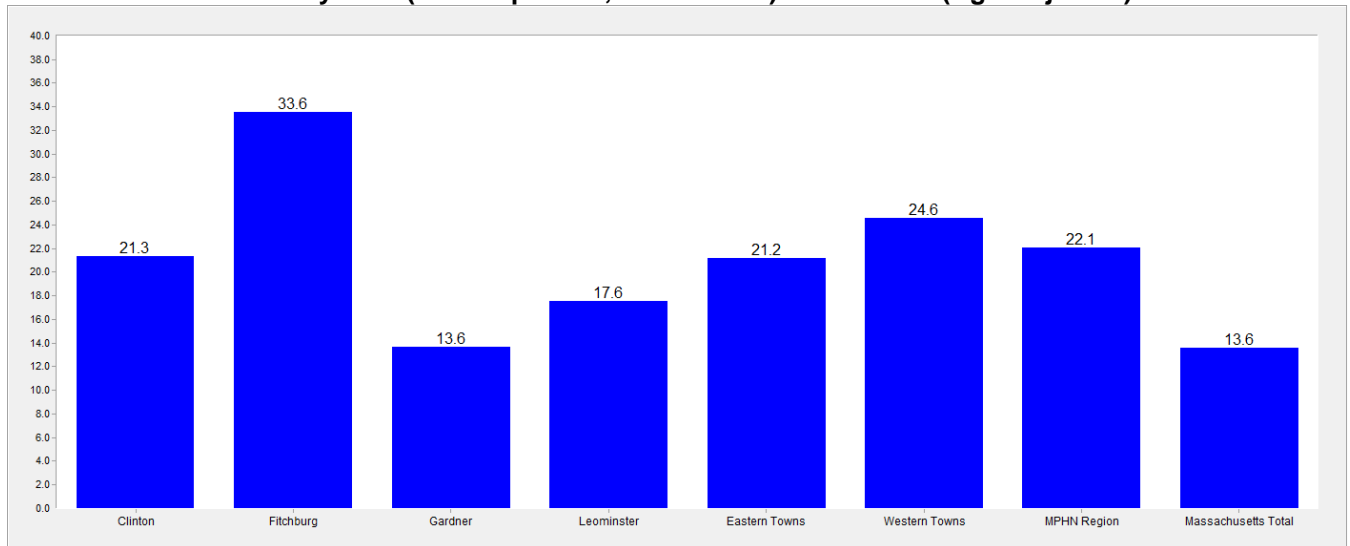
Healthy People 2010 Goal = 48.0 per 100,000

Healthy People 2020 Goal = 33.8 per 100,000

Diabetes Mortality Rate

Within the qualitative assessment, diabetes was mentioned most frequently among Focus Groups participants as the top personal health issue facing them or their families. Specifically, 8 out of 13 Focus Groups cited diabetes as a major health concern. The salience of diabetes to Focus Group participants is not surprising in light of the relatively high Diabetes Mortality Rates in the region. In the 2008 – 2010 time period, the age-adjusted Diabetes Mortality Rate in Massachusetts was 13.6. Within the MPH region, the age adjusted Diabetes Mortality Rate was higher than that of the Commonwealth at 22.1 or 1.6 times that of the State as a whole.

Diabetes Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goal = 45.0 per 100,000 based on more “inclusive” criteria than available on MassCHIP
Healthy People 2020 Goal = 65.8 per 100,000 based on more “inclusive” criteria than available on MassCHIP

Most of the reporting regions in the MPH service area had age-adjusted Diabetes Mortality Rates higher than the State, with the highest rate reported in the Fitchburg at 33.6, followed by the Western Towns at 24.6 and Clinton at 21.3. The lowest Diabetes Mortality Rate in the MPH region was reported in the Gardner at 13.6, equal to the rate for the Commonwealth overall.

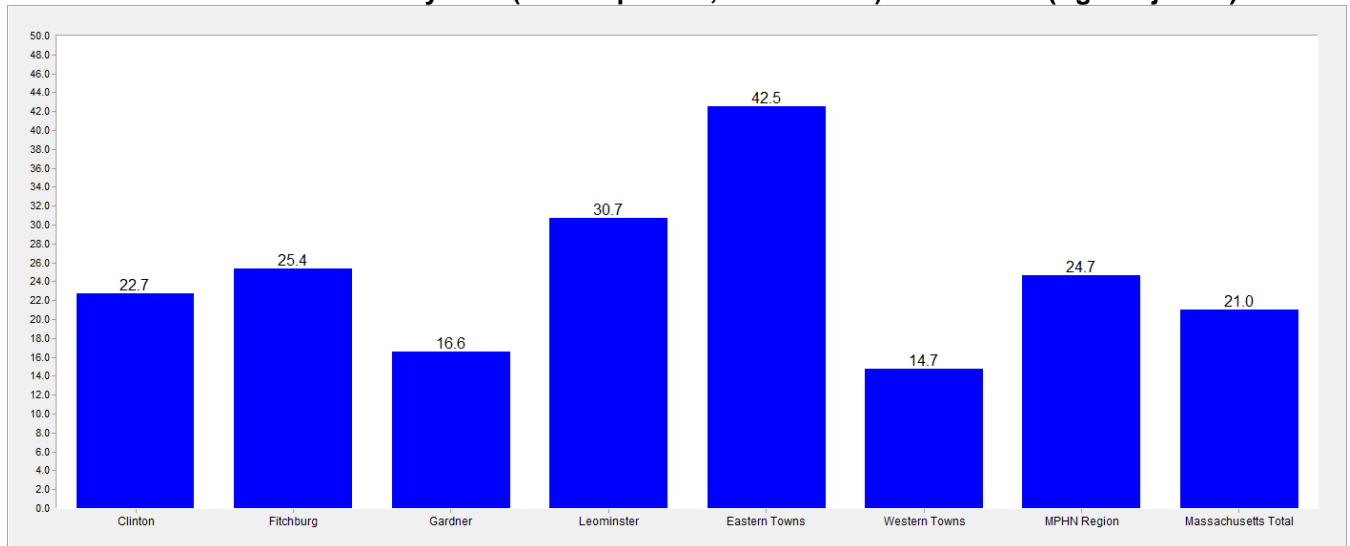
Within the Commonwealth, the age-adjusted Diabetes Mortality Rate varied among racial/ethnic groups during this time period, with a high of 27.8 for Black, non-Hispanics, followed by rates of 18.5 for Hispanics, 12.9 for White, non-Hispanics and 9 for Asians. Within the MPH region, the numbers are too small to provide a meaningful break out of data by race/ethnicity or by community.

Alzheimer’s Disease Mortality Rate

In Massachusetts there were 5,289 deaths due to Alzheimer’s Disease in the 2008 – 2010 timeframe, for an age-adjusted Alzheimer’s Disease Mortality Rate of 21 per 100,000. Within the MPH region, there were 157 deaths due to Alzheimer’s Disease in this time period for an age-adjusted Alzheimer’s Disease Mortality Rate of 24.7.

Four of the reporting regions in the MPH service area exhibited age-adjusted Alzheimer’s Disease Mortality Rates higher than the State during this time period, with the Eastern Towns reporting an Alzheimer’s Disease Mortality Rate of 42.5, followed by Leominster at 30.7, Fitchburg at 25.4 and Clinton at 22.7. The lowest age-adjusted Alzheimer’s Disease Mortality Rate was reported in the Western Towns at 14.7.

Alzheimer's Disease Mortality Rate (Deaths per 100,000 Persons) 2008 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the age-adjusted Alzheimer's Disease Mortality Rate varied among racial/ethnic groups during this time period, with a high of 21.6 for White, non-Hispanics, followed by rates of 16 for Black, non-Hispanics, 10.9 for Hispanics and 10.4 for Asians. Within the MHPN region, the numbers are too small to provide a meaningful break out of data by race/ethnicity or by city/town.

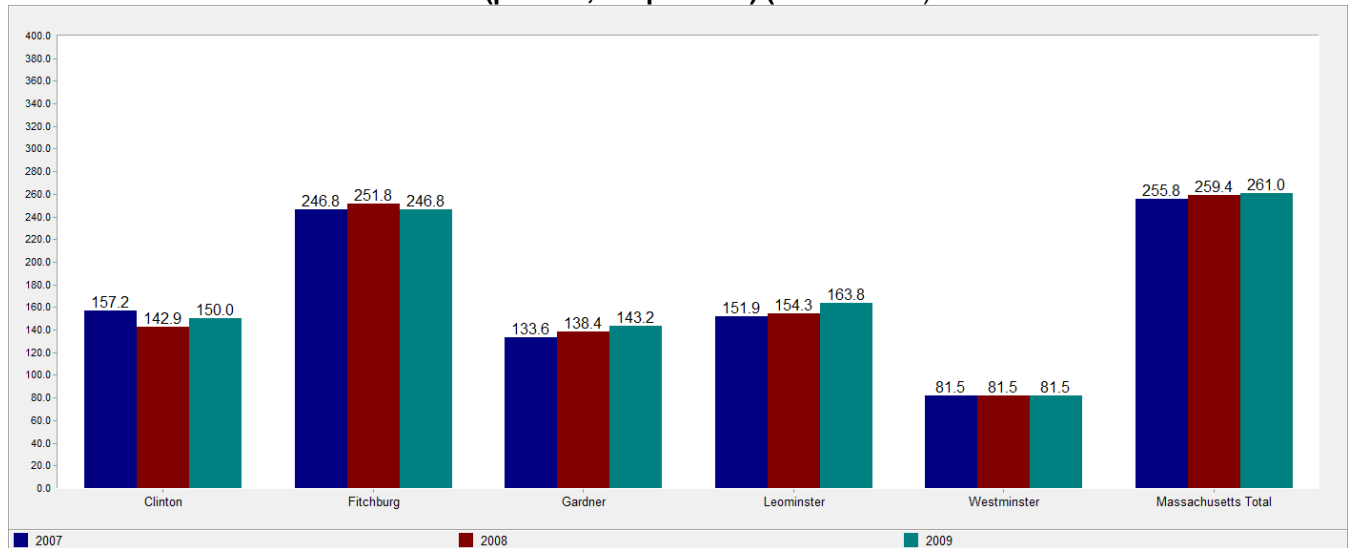
INFECTIOUS DISEASES

HIV/AIDS

Data relative to HIV/AIDS is only available for individual years. It is not available by reporting regions, only for individual cities/towns. In addition, the rates available are crude rates per 100,000, with no age adjustment. Due to small numbers, only certain communities have meaningful data, as shown below.

During the 2007 – 2009 time period, the prevalence or number of people with HIV/AIDS in Massachusetts increased by 4.3%. In 2007, there were 16,501 individuals in Massachusetts with HIV/AIDS for a crude prevalence rate of 255.8 per 100,000. By 2009, that number had increased to 17,208 people or 261 cases per 100,000. Within the MHPN region as a whole, the prevalence of HIV/AIDS increased by 2.7% during this time period from 220 people per 100,000 in 2007 to 226 per 100,000 people in 2009.

Prevalence of HIV/AIDS – Crude Rate (per 100,000 persons) (2007 – 2009)



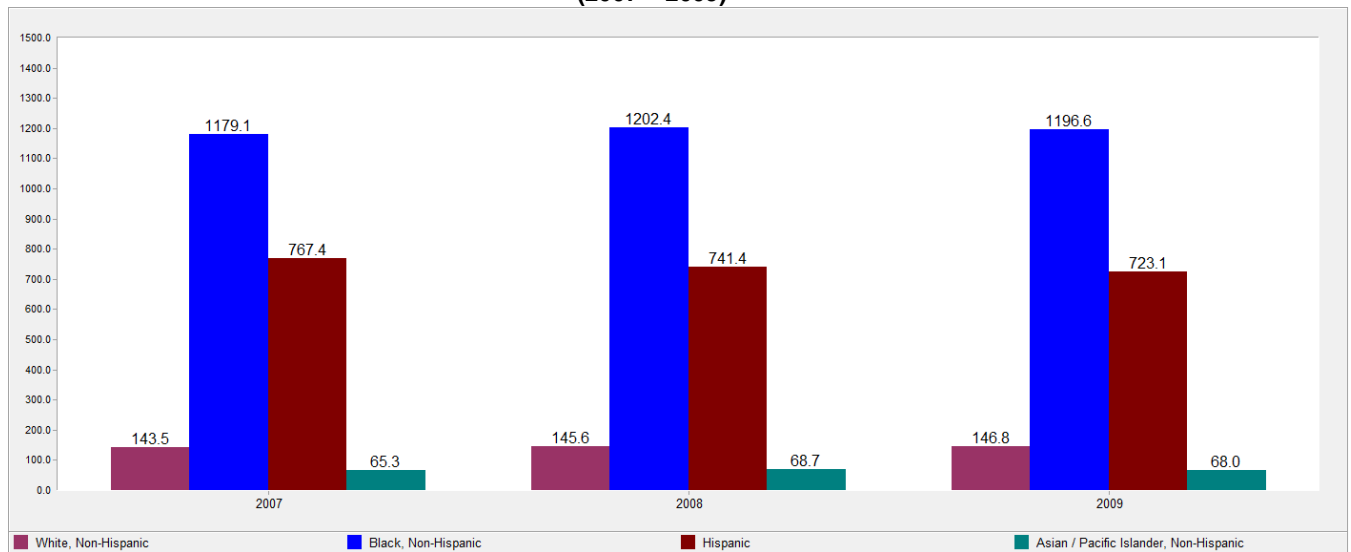
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In 2009, all of the communities with the MPH region experienced an HIV/AIDS prevalence rate lower than that of the Commonwealth. Fitchburg had the highest HIV/AIDS crude prevalence rate in the region in 2009 at 246.8, followed by Leominster at 163.8, Clinton at 150, Gardner at 143.2 and Westminster at 81.5.

Most of the cities/towns had a steady number of individuals with HIV/AIDS in their communities over this three year period. A few of the communities had increases in the number of people with HIV/AIDS between 2007 and 2009, with Leominster reporting 5 additional people and Gardner reporting 2. Clinton experienced a net loss of 1 individual during this time period.

Data on the prevalence of HIV/AIDS by race/ethnicity is available only at the State level. The crude prevalence rate of HIV/AIDS cases per 100,000 varies widely among racial/ethnic groups, with rates for Black, non-Hispanics increasing from 1179.1 to 1202.4 cases per 100,000 from 2007 to 2008 and then decreasing slightly to 1196.6 in 2009. During this same time period, the rate of HIV/AIDS cases among Hispanics fell from 767.4 in 2007 to 741.4 in 2008 and then to 723.1 in 2009. The HIV/AIDS rate for White, non-Hispanics rose from 143.5 to 146.8, while the HIV/AIDS rate for Asians rose from 65.3 to 68 cases per 100,000 between 2007 and 2009.

Prevalence of HIV/AIDS in Massachusetts – Crude Rate per (per 100,000 Persons) by Race/Ethnicity (2007 – 2009)

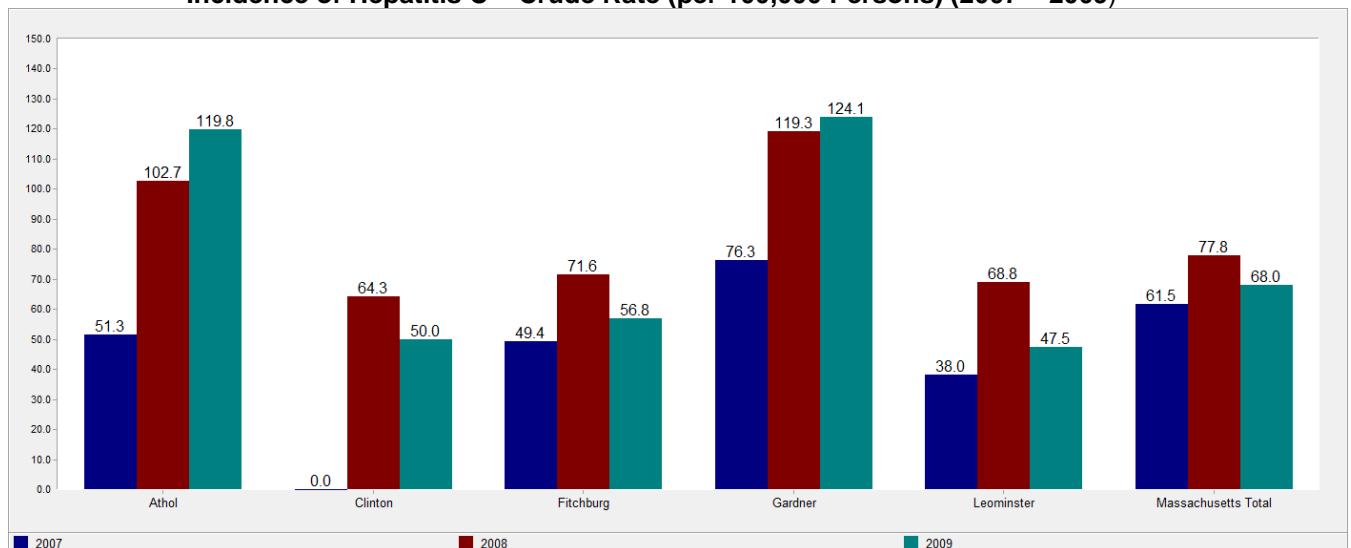


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Hepatitis C

Data relative to Hepatitis C is only available for individual years. It is not available by reporting regions, only for individual cities/towns. In addition, the rates available are crude rates per 100,000, with no age adjustment. Due to small numbers, only certain communities have meaningful data, as shown below.

Incidence of Hepatitis C – Crude Rate (per 100,000 Persons) (2007 – 2009)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

During the 2007 – 2009 time period, the incidence or number of new cases of Hepatitis C reported in Massachusetts increased. In 2007, there were 3,967 new cases of Hepatitis C in Massachusetts for a rate of 61.5 per 100,000. By 2009, that number had increased to 4,486 new cases or 68 cases per 100,000.

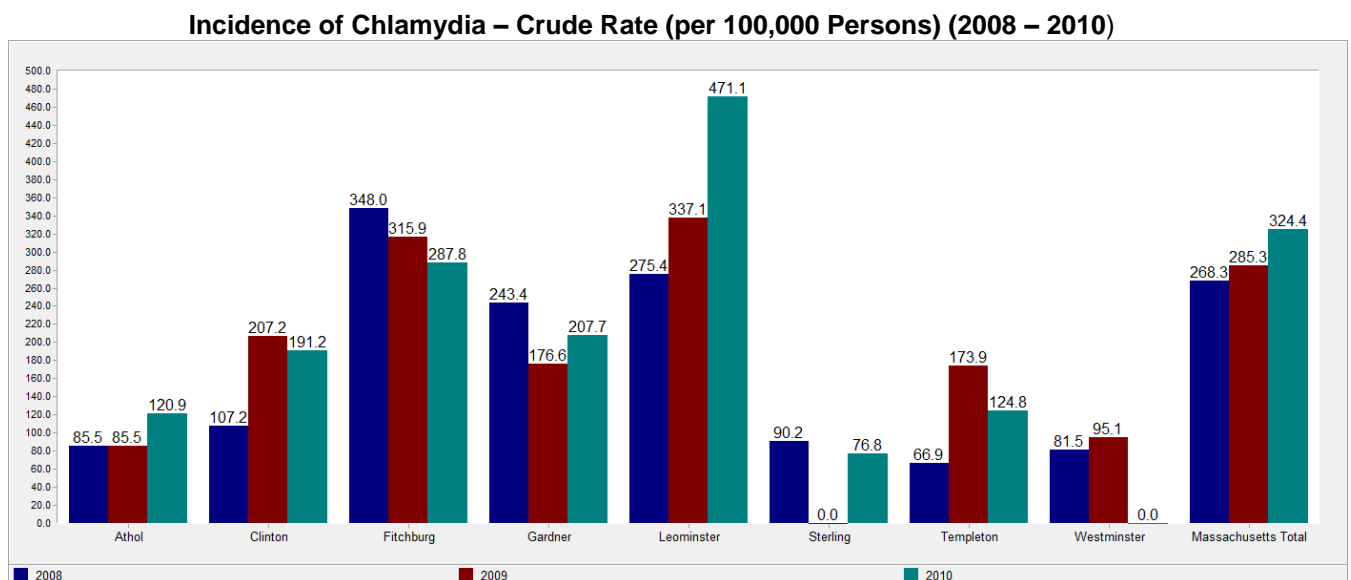
Within the communities in the MPH region, only Gardner consistently reported a higher Hepatitis C incidence rate than did the Commonwealth as a whole in each of the three years reported here. In addition, unlike the State, which had a decrease in its Hepatitis C incidence rate in 2009 as compared to 2008, Gardner's rate continued to climb. In 2009, Gardner's rate of 124.1 was 1.8 times that of the Commonwealth as a whole.

Athol also experienced steady increases in its Hepatitis C incidence rate over the 3 year period from 2007 to 2009, reporting a rate of 119.8 in 2009 that was 1.8 times that reported by the State.

Hepatitis C incidence rates in Clinton, Fitchburg and Leominster were consistently lower than the rates in the Commonwealth. Although rates in these 3 communities rose between 2007 and 2008, they decreased in 2009. It should be noted that the zero Hepatitis C incidence rate shown on the chart above for Clinton in 2007 represents a N/A value, indicating that the data has been suppressed.

Chlamydia

The data related to Chlamydia is only available for individual years and for individual cities/towns. In addition, the rates available are crude rates per 100,000, with no age adjustment. Due to small numbers, only certain communities have meaningful data, as shown below.



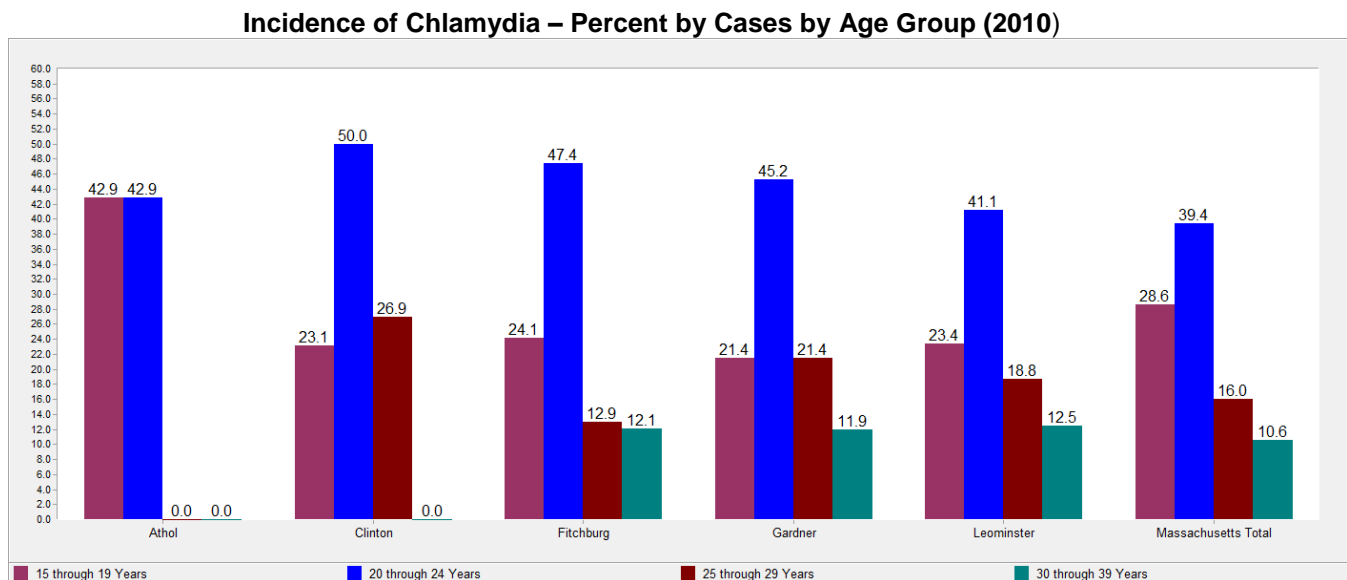
Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

During the 2008 – 2010 time period the incidence or number of new cases of Chlamydia reported in Massachusetts increased. In 2008, there were 17,434 new cases of Chlamydia in Massachusetts for a rate of 268.3 per 100,000. By 2010, that number had increased to 21,236 new cases or 324.4 cases per 100,000.

Within the communities in the MPH region, only Leominster consistently reported a higher Chlamydia incidence rate than did the Commonwealth as a whole in each of the three years reported here. In 2010, Leominster's rate of 471.1 was 1.5 times that of the Commonwealth as a whole.

Fitchburg is notable in that its Chlamydia incidence rate in 2008 was higher than that of the State. However, unlike the State, whose rate continued to climb in 2009 and 2010, Fitchburg's rate decreased during this time period, with the Chlamydia incidence rate reported by Fitchburg in 2010 being lower than that of the State.

The remainder of the communities in the MPH region had Chlamydia incidence rates lower than that of the Commonwealth for each of the three years reported here. It should be noted that the zero Chlamydia incidence rates shown on the chart above for Sterling in 2009 and for Westminster in 2010 represent N/A values, indicating that the data has been suppressed.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within Massachusetts in 2010, the majority of new Chlamydia cases were reported in people between the ages of 15 and 39, with the highest percentage of cases in people in the 20 – 24 age group (39.4%). People in the 15 – 19 age group had the next highest percent at 28.6%, followed by 25 – 29 year olds at 16% and 30 – 39 year olds at 10.6%.

The highest percentage of cases in the 15 – 19 age group was reported in Athol, with 42.9% of the cases in Athol reported in this age group. The highest percentage of cases in the both the 20 – 24

and 25 – 29 age groups was reported in Clinton, with 50% and 26.9% of its cases found in these age groups, respectively. The highest percentage of Chlamydia cases in the 30 – 39 age group was reported in Leominster at 12.5%.

It should be noted that the zero Chlamydia figures shown on the chart above for Athol for the 25 – 29 age group and for both Athol and Clinton for the 30 – 39 age group represent N/A values, indicating that the data has been suppressed.

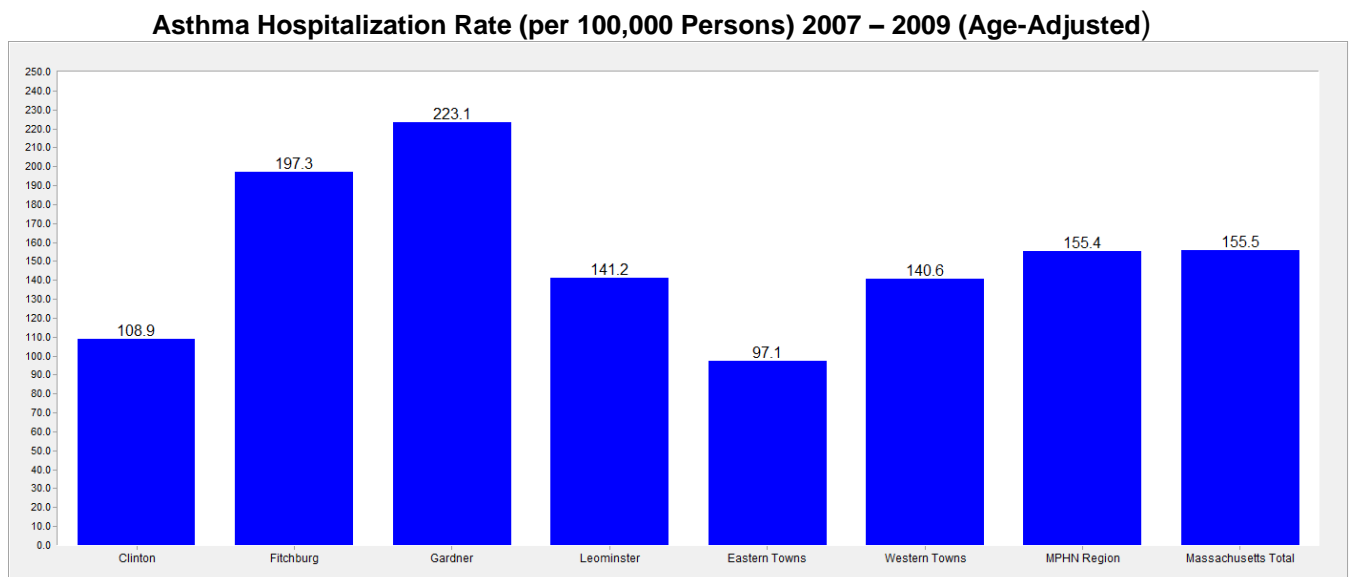
PRIMARY CARE MANAGEABLE HOSPITALIZATIONS

The Commonwealth routinely reports on three hospitalization measures for conditions (asthma, angina and bacterial pneumonia) that are considered to be manageable on an outpatient basis, when given access to high-quality primary care. As a result, higher hospitalization rates for these measures can be used as an indicator of poorer access to appropriate care.

Asthma

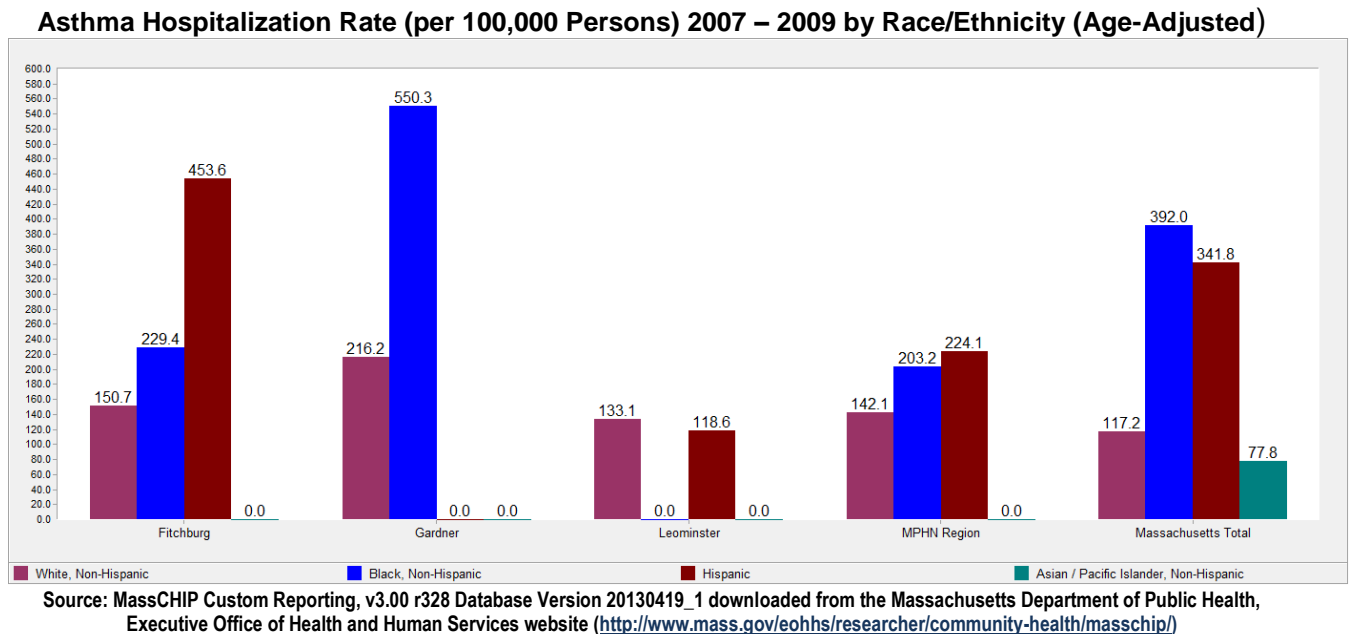
During the 2007 – 2009 time period, there were 30,326 asthma hospitalizations in Massachusetts for an age-adjusted rate of 155.5 per 100,000. Within the MPH region, there were 752 asthma hospitalizations for an age-adjusted Asthma Hospitalization Rate of 155.4, in line with that of the Commonwealth as a whole.

Two of the reporting regions in the MPH service area had age-adjusted Asthma Hospitalization Rates higher than the State, with the highest rate reported in Gardner at 223.1 (1.4 times the rate reported in the Commonwealth), followed by Fitchburg at 197.3. The lowest age-adjusted Asthma Hospitalization Rate was reported in the Eastern Towns at 97.1. Clinton (108.9), the Western Towns (140.6) and Leominster (141.2) all reported rates lower than that of the Commonwealth.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the age-adjusted Asthma Hospitalization Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 392, followed by Hispanics at 341.8, White, non-Hispanics at 117.2, and Asians at 77.8 per 100,000. Within the MPH region as a whole, the age adjusted Asthma Hospitalization Rate was lower for Black, non-Hispanics and Hispanics than that reported by the State, but higher for White, non-Hispanics. In the MPH area, the highest age adjusted Asthma Hospitalization Rate was reported for Hispanics at 224.1, followed by Black, non-Hispanics at 203.2 and White, non-Hispanics at 142.1. The age-adjusted Asthma Hospitalization Rate for Asians, shown as zero in the chart below, was suppressed with a value of N/A.



Due to the large number of suppressed values for this measure, the chart above only contains the reporting regions for which data was available for at least two of the major racial/ethnic groups. In all cases, the zeroes in the chart represent suppressed figures.

The highest age-adjusted Asthma Hospitalization Rate was reported among Black, non-Hispanics in Gardner, with a rate of 550.3 or 1.4 times the rate reported for Black, non-Hispanics in the Commonwealth as a whole. However, in the other regions, the age-adjusted Asthma Hospitalization Rates for Black, non-Hispanics were lower than that reported in the State overall.

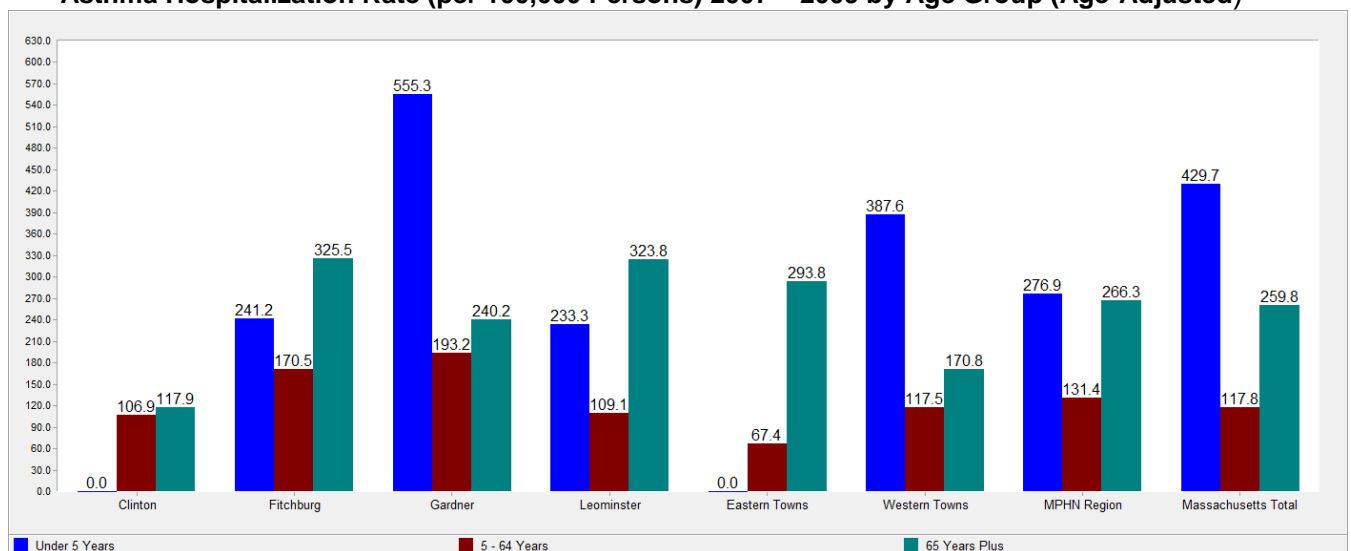
It should be noted that the highest age-adjusted Asthma Hospitalization Rate among White, non-Hispanics in the region was also reported in Gardner, with a rate of 216.2 or 1.8 times the rate reported for White, non-Hispanics in the Commonwealth as a whole. All of the other reporting regions in the MPH service area also had age-adjusted Asthma Hospitalization Rates among White, non-Hispanics that were higher than that reported in the State overall.

The highest age-adjusted Asthma Hospitalization Rate among Hispanics in the region was reported in Fitchburg, with a rate of 453.6 or 1.3 times the rate reported for Hispanics in the

Commonwealth as a whole. Leominster reported an age-adjusted Asthma Hospitalization Rate among Hispanics of 118.6, a rate that was much lower than that reported among Hispanics in the Commonwealth.

Within the Commonwealth, the age-adjusted Asthma Hospitalization Rate varied by age group, with the highest rates found among children less than 5 years old at 429.7, followed by adults 65 and over at 259.8 and 5–64 year olds at 117.8 per 100,000. Within the MPH region as a whole, the age adjusted Asthma Hospitalization Rate was higher for the 5–64 year old and 65 year plus age groups than that reported by the State, but lower for the under 5 year old age group. In the MPH area, the highest age-adjusted Asthma Hospitalization Rate was reported in the under 5 age group at 276.9, followed by the 65 year plus age group at 266.3 and the 5 – 64 age group at 131.4.

Asthma Hospitalization Rate (per 100,000 Persons) 2007 – 2009 by Age Group (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2010 Goals: Rates per 100,000: Under 5 years=250; 5–64 years=77; 65 years plus=110
Healthy People 2020 Goals: Rates per 100,000: Under 5 years=181; 5–64 years=86; 65 years plus=203

The highest age-adjusted Asthma Hospitalization Rate in the region was reported among children under 5 in Gardner, with a rate 555.3 or 1.3 times the rate in the Commonwealth for this age group. However, in the other regions, the age-adjusted Asthma Hospitalization Rate for children under 5 was lower than that reported in the State overall.

The highest age-adjusted Asthma Hospitalization Rate for 5 – 64 year olds was also reported in Gardner at 193.2 or 1.6 times that State rate for this age group. Fitchburg at 170.5 also reported a rate in this age group that was higher than that of the Commonwealth. The lowest rate in this age group was reported in the Eastern Towns at 67.4.

The highest age-adjusted Asthma Hospitalization Rate for adults 65 years old and over was reported in Fitchburg at 325.5, followed by Leominster at 323.8 and the Eastern Towns at 293.8. The lowest rate in this age group was reported in the Clinton at 117.9.

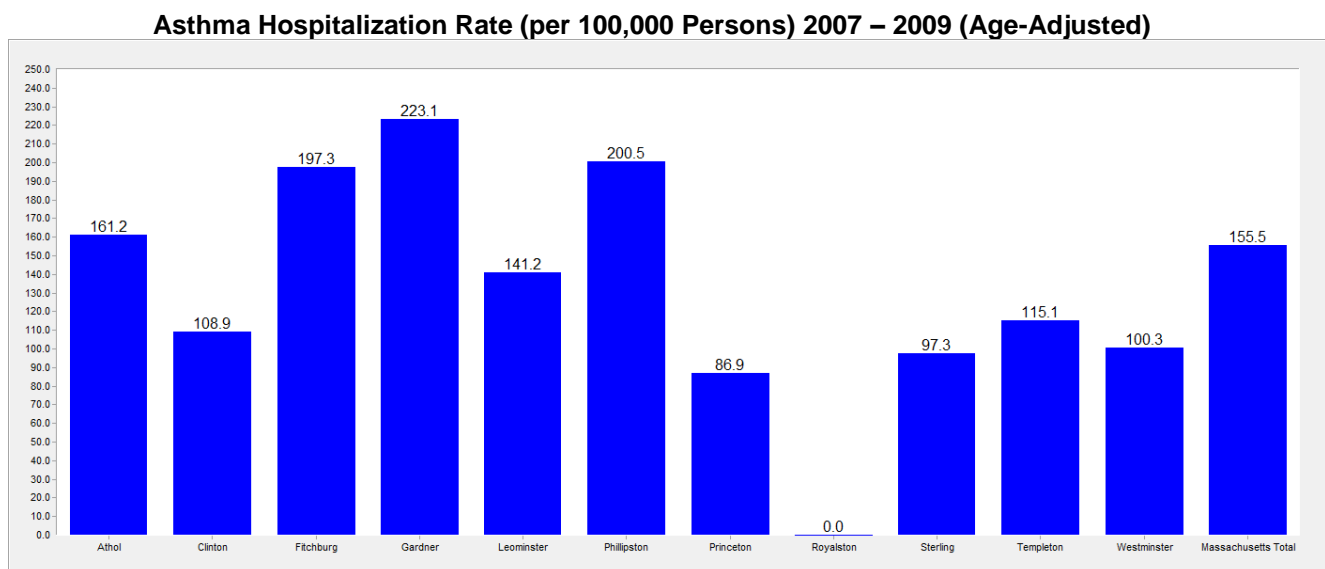
Again, the zeroes on the chart above for the under 5 age group in Clinton and in the Eastern Towns represent suppressed values.

Some of the communities in the MPH service area had age-adjusted Asthma Hospitalization Rates higher than that of the State, with Phillipston (200.5) and Athol (161.2) joining Gardner and Fitchburg among those with the highest rates. It must be noted, however, that Phillipston's rate is based on 12 actual cases, a relatively small number.

The lowest age-adjusted Asthma Hospitalization Rates were reported in Princeton (86.9), Sterling (97.3) and Westminster (100.3). Again, it is worth noting that Princeton's rate is based on 8 actual cases, a relatively small number.

The zeroes shown on the chart below for Royalston reflect a suppressed figure.

The numbers are too small to perform an analysis of age-adjusted Asthma Hospitalization Rates by racial/ethnic group or age group at the city/town level.

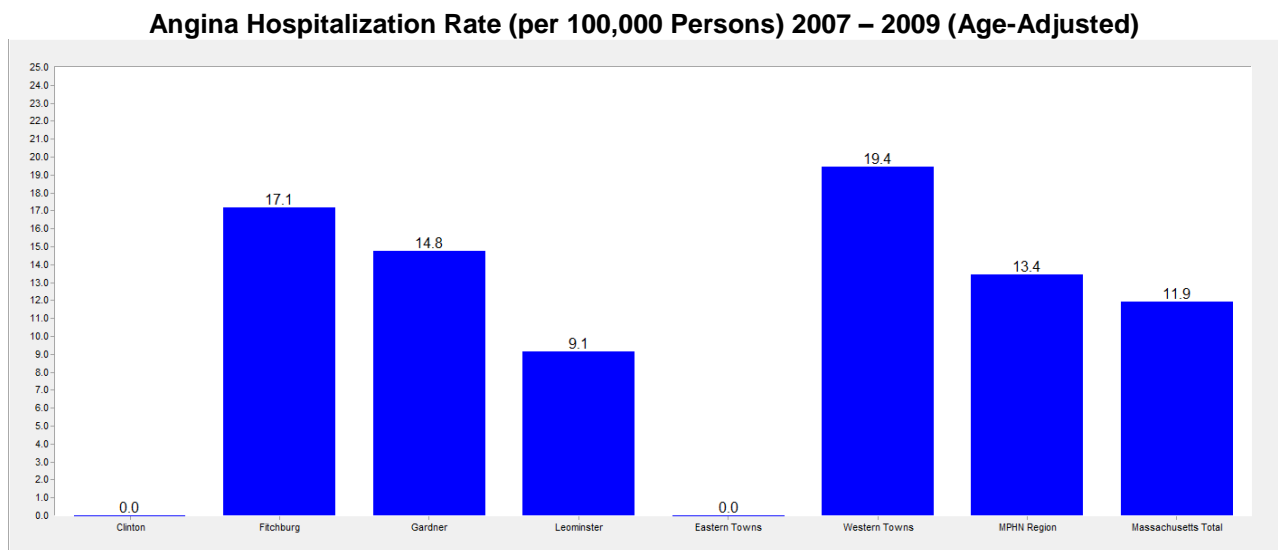


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Angina

During the 2007 – 2009 time period, there were 2,616 hospitalizations for angina in Massachusetts for an age-adjusted Angina Hospitalization Rate of 11.9 per 100,000. Within the MPH region, there were 68 angina hospitalizations for an age-adjusted Angina Hospitalization Rate of 13.4, higher than that of the Commonwealth as a whole.

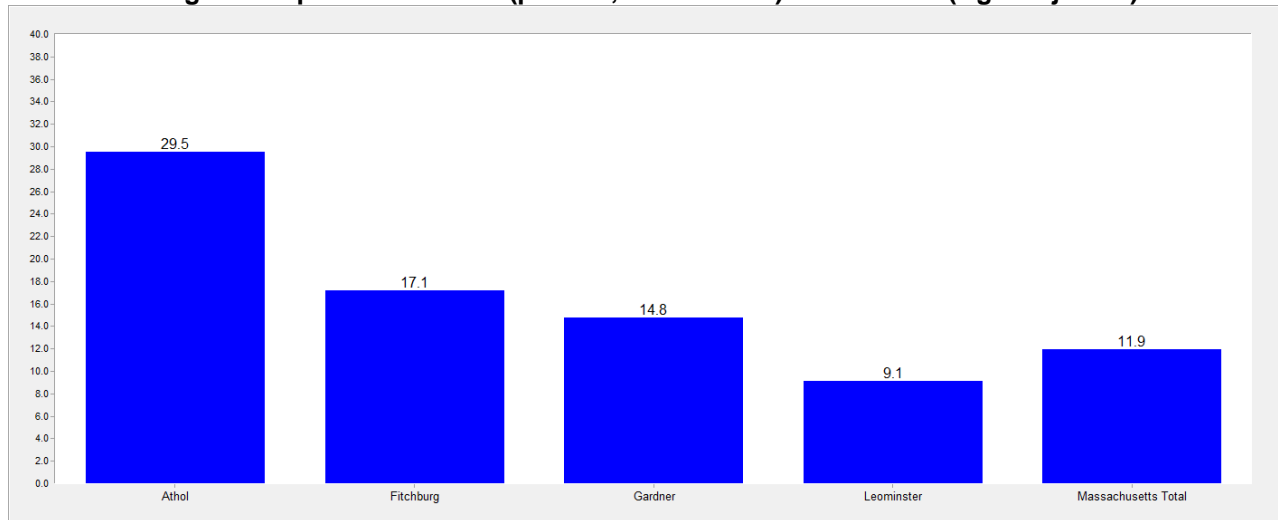
Three of the reporting regions in the MPH service area had age-adjusted Angina Hospitalization Rates higher than the State, with the highest rate reported in the Western Towns at 19.4 (1.6 times the rate reported in the Commonwealth), followed by Fitchburg at 17.1 and Gardner at 14.8. The lowest age-adjusted Angina Hospitalization Rate was reported in Leominster at 9.1. Please note that data for Clinton and the Eastern Towns has been suppressed and shows as zeroes in the chart below.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the age-adjusted Angina Hospitalization Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 15.9, followed by Hispanics at 15.6, White, non-Hispanics at 11.3, and Asians at 5.3 per 100,000. The numbers are too small to perform an analysis of age-adjusted Angina Hospitalization Rates by racial/ethnic group for the MPH service area as a whole or the reporting regions.

Angina Hospitalization Rate (per 100,000 Persons) 2007 – 2009 (Age-Adjusted)

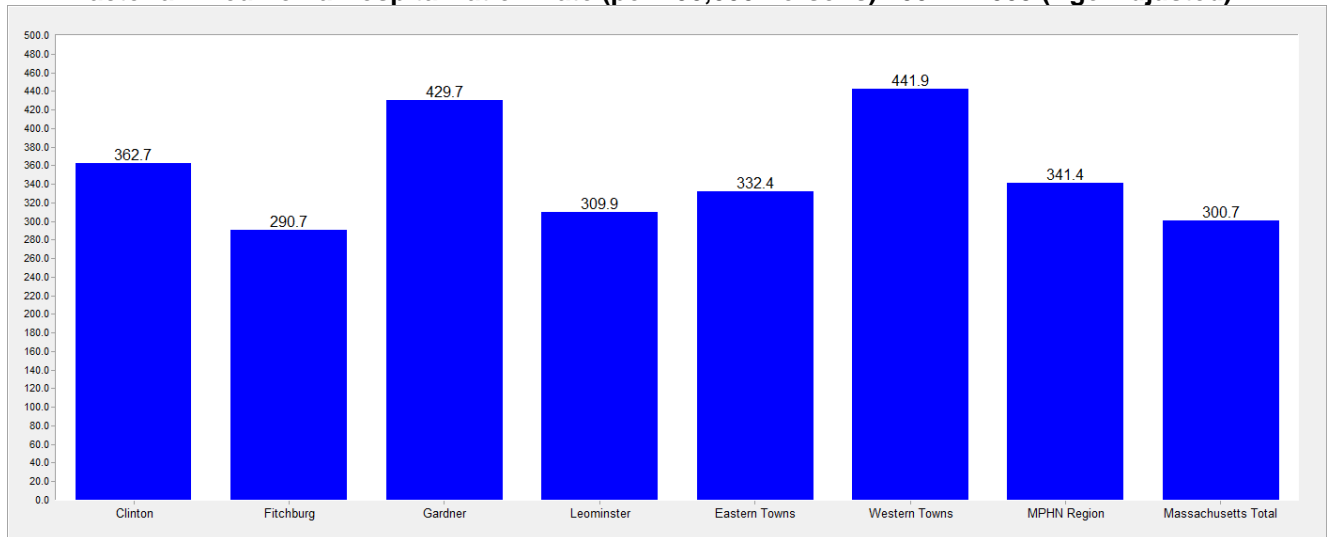


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Most of the communities in the MPH region had too few angina hospitalizations during the 2007 – 2009 time period to provide meaningful data. The figures for Clinton, Royalston, Sterling, Templeton and Westminster have been suppressed. However, Athol had a very high age-adjusted Angina Hospitalization Rate of 29.5, approximately 2.5 times that of the Commonwealth. Phillipston and Princeton reported zero hospitalization for angina during this time period.

Bacterial Pneumonia

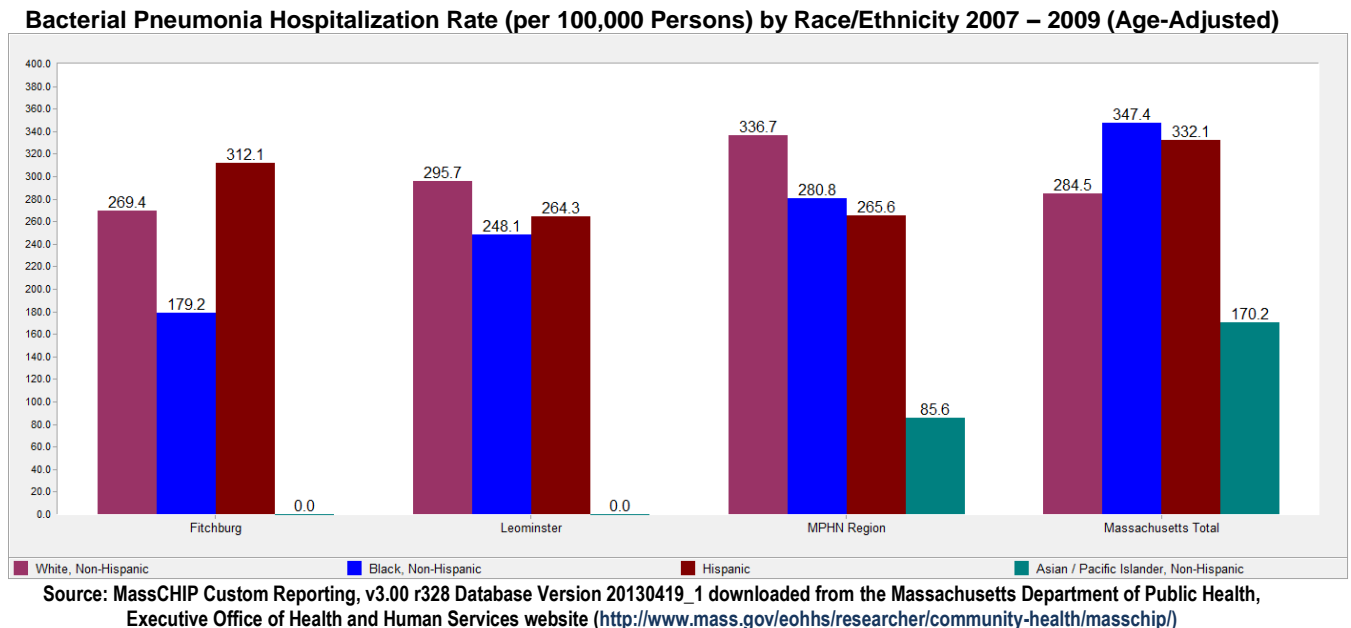
Bacterial Pneumonia Hospitalization Rate (per 100,000 Persons) 2007 – 2009 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

During the 2007 – 2009 time period, the age-adjusted Bacterial Pneumonia Hospitalization Rate in Massachusetts was 300.7 per 100,000. Within the MPH region, the age-adjusted Bacterial Pneumonia Hospitalization Rate was 341.4, higher than that of the Commonwealth as a whole.

Most of the reporting regions had age-adjusted Bacterial Pneumonia Hospitalization Rates higher than the State, with the highest rates reported in the Western Towns at 441.9 (1.5 times that of the State) and Gardner at 429.7 (1.4 times that of the State). The lowest age-adjusted Bacterial Pneumonia Rate was reported in Fitchburg at 290.7. Fitchburg was the only reporting region in the MPH service area to report a rate lower than that of the Commonwealth.

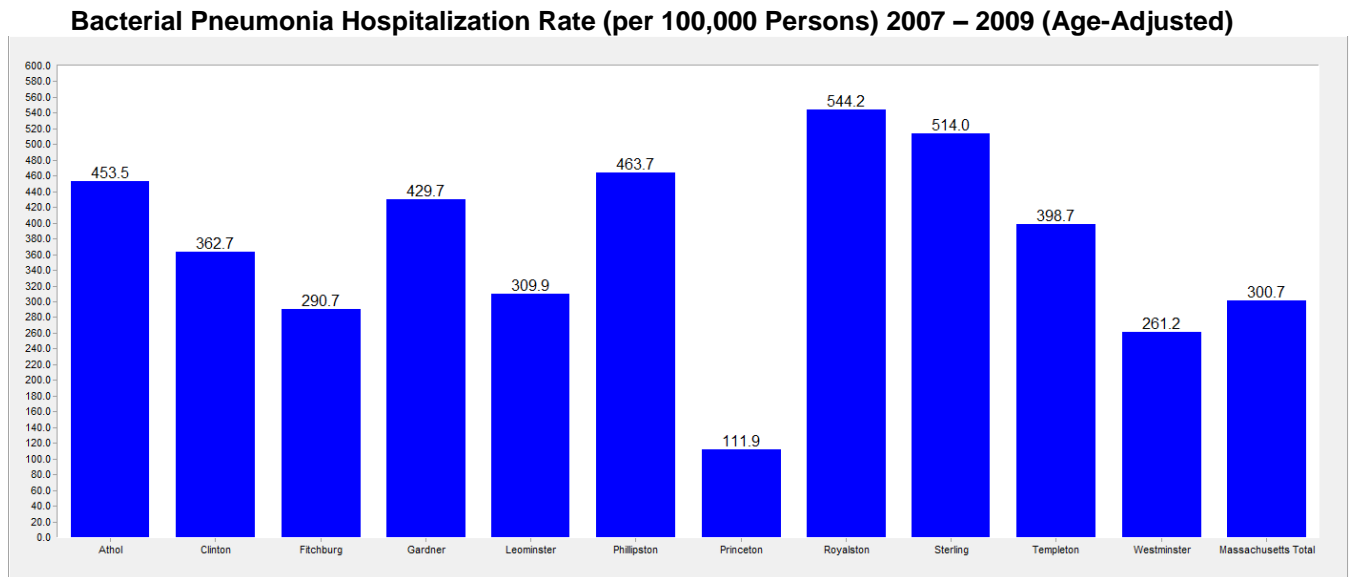


Within the Commonwealth, the age-adjusted Bacterial Pneumonia Hospitalization Rate varied by racial/ethnic group, with the highest rates found among Black, non-Hispanics at 347.4, followed by Hispanics at 332.1, White, non-Hispanics at 284.5 and Asians at 170.2 per 100,000. Within the MPH region as a whole, the age adjusted Bacterial Pneumonia Hospitalization Rate was lower for Black, non-Hispanics, Hispanics and Asians than that reported by the State, but higher for White, non-Hispanics. In the MPH area, the highest age adjusted Asthma Hospitalization Rate was reported for White, non-Hispanics at 336.7, followed by Black, non-Hispanics at 280.8, Hispanics at 265.6 and Asians at 85.6.

Due to the large number of suppressed values for this measure, the chart above only contains the reporting regions for which data was available for at least two of the major racial/ethnic groups. In all cases, the zeroes in the chart represent suppressed figures.

In Fitchburg and Leominster, the age-adjusted Bacterial Pneumonia Hospitalization Rates for Black, non-Hispanics and for Hispanics were lower than those reported by the State, while the rate for White, non-Hispanics was lower than the State in Fitchburg, but higher than the State in Leominster.

Many of the communities in the MPH region had age-adjusted Bacterial Pneumonia Hospitalization Rates higher than that of the State, with Royalston (544.2), Sterling (514) and Phillipston (463.7) reporting the highest rates. The lowest Bacterial Pneumonia Hospitalization Rates were found in Princeton (111.9), Westminster (261.2) and Fitchburg (290.7), all of which reported lower rates than the Commonwealth. The numbers are too small to perform an analysis of age-adjusted Bacterial Pneumonia Hospitalization Rates by racial/ethnic group or age group at the city/town level.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

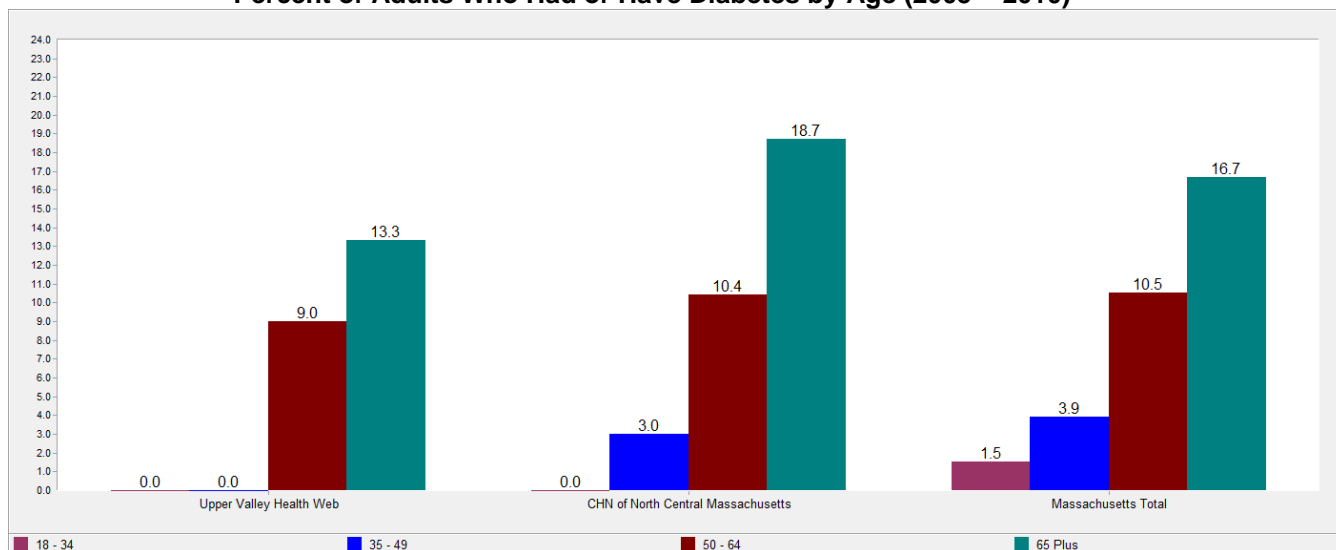
CHRONIC CONDITIONS AND DISABILITY

Diabetes

Within Massachusetts, 7.1% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported that they had or currently have diabetes, regardless of the type (Type 1 or Type 2). Within both CHNA 2 and CHNA 9, this percentage was lower at 5.9% and 6.3%, respectively.

Within the Commonwealth, the percentage of respondents who reported having or having had diabetes rose steadily from 1.5% of those in the 18 – 34 age group, to 3.9% of those in the 35 – 49 age group, 10.5% of those in the 50 – 64 age group and 16.7% of those in the 65 plus age group. Although data was suppressed for the 18 – 34 and 35 – 49 age groups in CHNA 2 and for the 18 – 34 age group in CHNA 9, this same trend of an increase in diabetes with age held true within the CHNAs. For the age groups with sufficient data, CHNA 2 had a lower percentage of adults who had or have diabetes than did the State in the corresponding age groups. In CHNA 9, the diabetes rate was lower than the State for the 35 – 49 age group (3% vs. 3.9%) and equivalent for the 50 – 64 age group (10.4% vs. 10.5%), but higher for the 65 plus age group (18.7% vs. 16.7%).

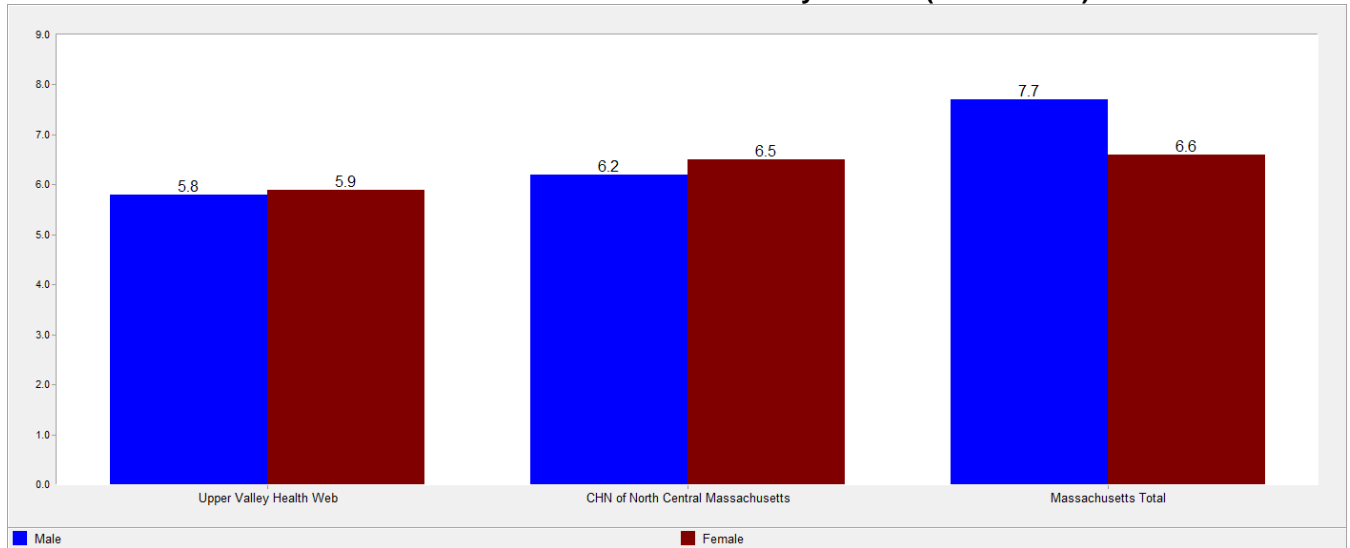
Percent of Adults Who Had or Have Diabetes by Age (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth a higher percentage of adult men at 7.7% have or had diabetes than adult women at 6.6%. However, within both CHNA 2 and CHNA 9, the opposite was true, with a higher percentage of women having or having had diabetes than men. The percent of adults with diabetes in both CHNA 2 and CHNA 9 was lower for both men and women than the diabetes rates among men and women in the Commonwealth.

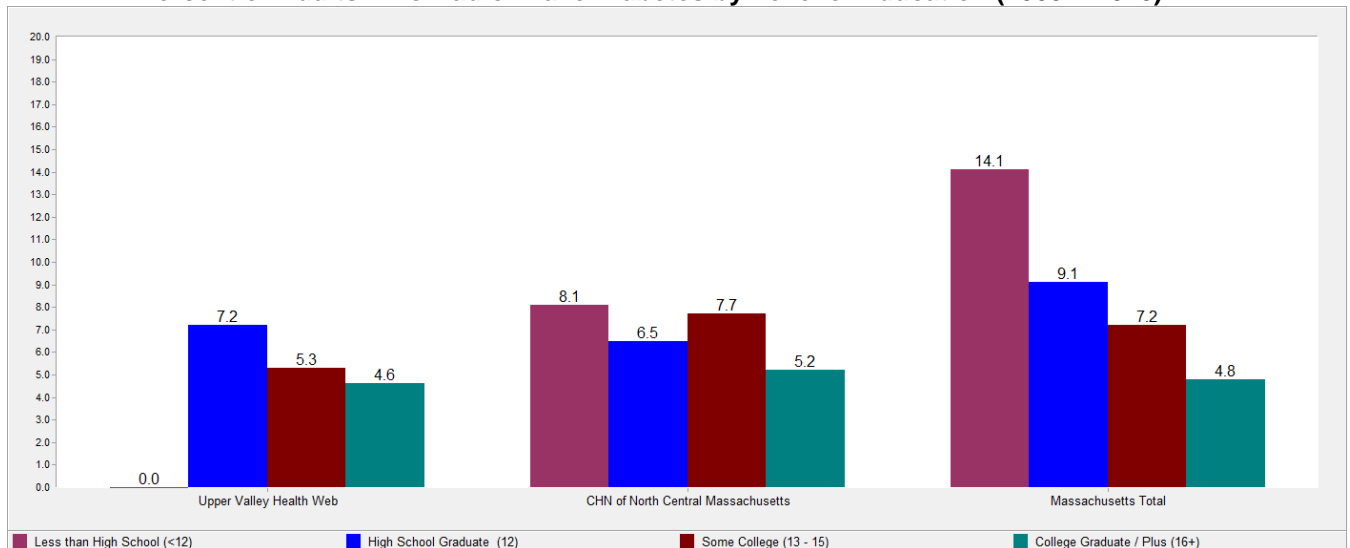
Percent of Adults Who Had or Have Diabetes by Gender (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within Massachusetts as a whole, the highest percentage of respondents who had or have diabetes was reported among Black, non-Hispanics at 10.7%, followed by Hispanics at 9%, White, non-Hispanics at 6.7%, and Asians at 5.5%. The numbers of respondents by race/ethnicity were too few to provide meaningful data for CHNA 2 or CHNA 9.

Percent of Adults Who Had or Have Diabetes by Level of Education (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In the State as a whole, the higher the educational level, the less likely the adult was to have or to have had diabetes. The highest percentage of adults with diabetes was 14.1% among those with less than a high school education. The rate decreased to 9.1% for high school graduates, 7.2% for those with some college and 4.8% for college graduates.

In CHNA 2, the percent of adults who have or had diabetes among those with less than a high school education was suppressed. For the other educational levels, CHNA 2 had rates of adults with diabetes which decreased with the level of education as seen within the State. In addition, the diabetes rates for each educational level within CHNA 2 were lower than the rates for the corresponding educational levels in the State. The 5.3% of adults with some college who have or had diabetes in CHNA 2 was considerably lower than the 7.2% in the State and the 7.7% in CHNA 9.

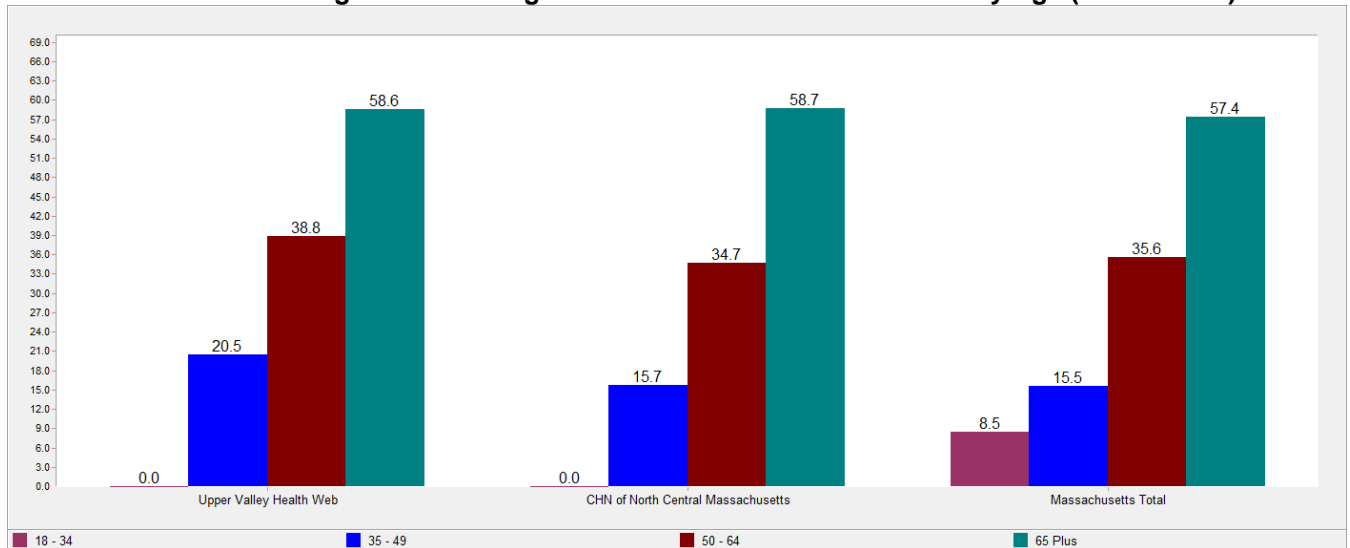
Within CHNA 9 a different trend was seen, with diabetes rates decreasing from a high of 8.1% among those with less than a high school education to 6.5% of those with a high school diploma and then rising to 7.7% of those with some college and finally hitting a low of 5.2% for college graduates. These diabetes rates were lower than the State for the less than high school and high school graduate groups, but higher than the State for the some college and college graduate groups.

As mentioned above in the section on Diabetes Mortality Rates, within the qualitative assessment, diabetes was mentioned most frequently among Focus Groups participants as the top personal health issue facing them or their families. Specifically, 8 out of 13 Focus Groups cited diabetes as a major health concern.

High Blood Pressure

Within Massachusetts, 25.8% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported that they had been diagnosed with high blood pressure in their lifetimes. Within CHNA 2, this percentage was higher at 29.1%, while it was lower in CHNA 9 at 24.5%.

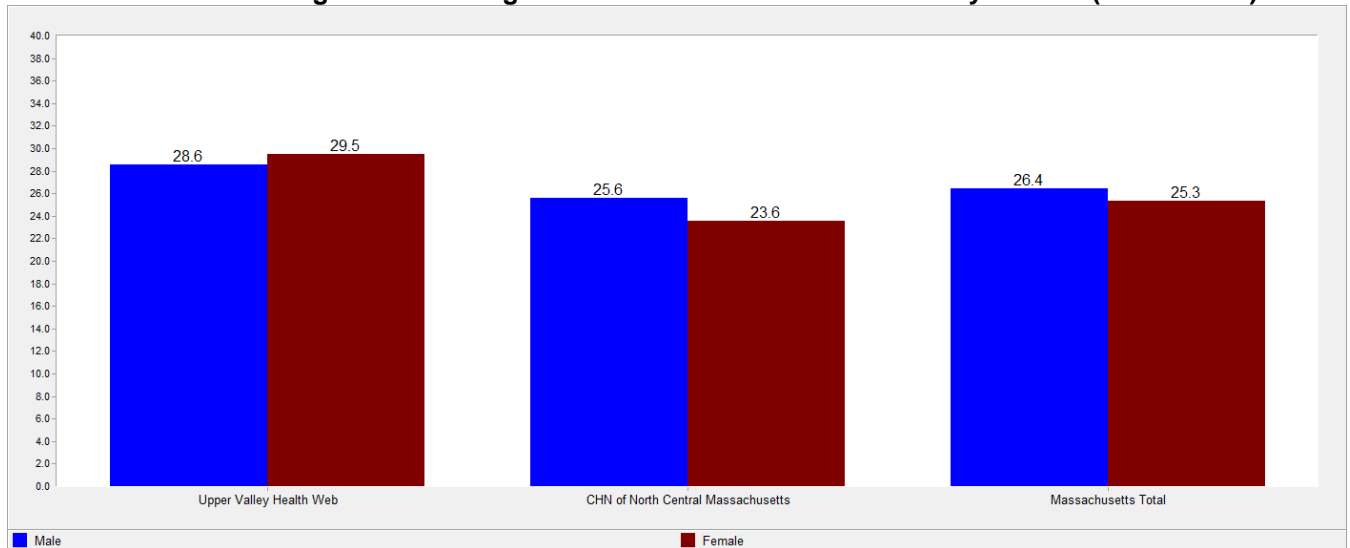
Percent of Adults Diagnosed with High Blood Pressure in their Lifetime by Age (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the percentage of respondents who reported being diagnosed with high blood pressure rose steadily from 8.5% of those in the 18 – 34 age group, to 15.5% of those in the 35 – 49 age group, 35.6% of those in the 50 – 64 age group and 57.4% of those in the 65 plus age group. Although data was suppressed for the 18 – 34 age groups in both CHNA 2 and CHNA 9, this same trend of an increase in high blood pressure with age held true within the CHNAs. For the age groups with sufficient data, CHNA 2 had a higher percentage of adults who have been diagnosed with high blood pressure than did the State in the corresponding age groups. In CHNA 9, the high blood pressure rate was slightly higher than the State for the 35 – 49 age group (15.7% vs. 15.5%), lower for the 50 – 64 age group (34.7% vs. 35.6%), and higher for the 65 plus age group (58.7% vs. 57.4%).

Percent of Adults Diagnosed with High Blood Pressure in their Lifetime by Gender (2005 – 2010)

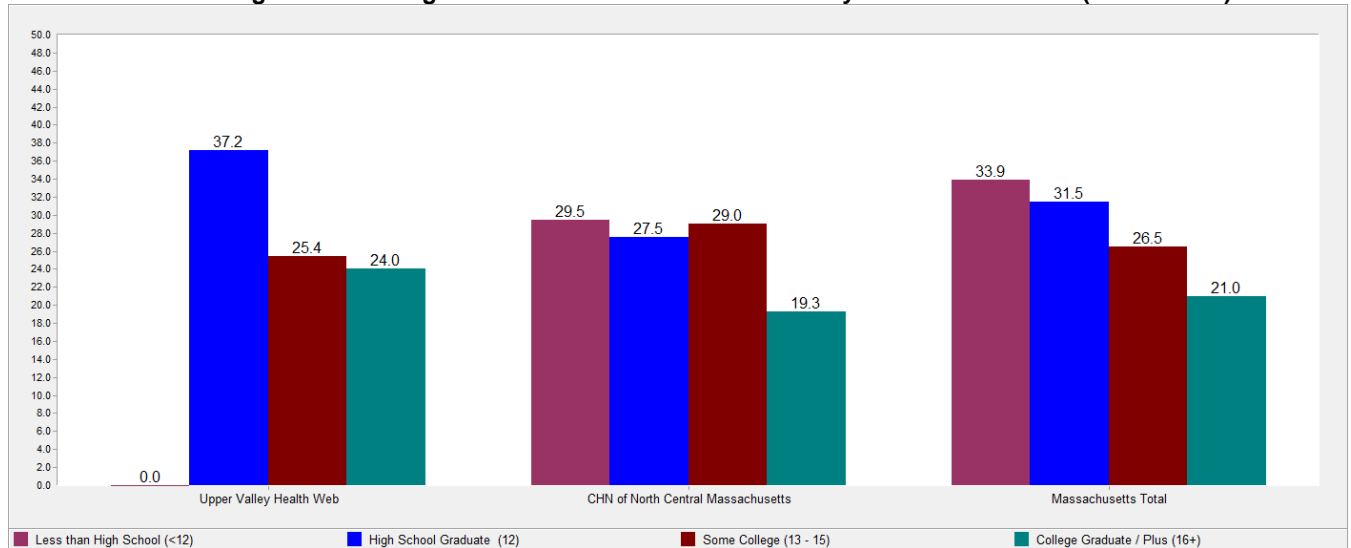


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth and CHNA 9 a higher percentage of adult men have been diagnosed with high blood pressure than adult women. Within CHNA 2 the opposite is true, with a higher percentage of women with high blood pressure than men. CHNA 2 had higher percentages of both men and women with high blood pressure than did the State, while CHNA 9 had lower percentages for both genders than did the State.

The numbers of respondents by race/ethnicity were too few to provide meaningful data within CHNA 2 or CHNA 9. Within the Commonwealth as a whole, the highest percentage of respondents who were diagnosed with high blood pressure was reported among Black, non-Hispanics at 30.2%, followed by White, non-Hispanics at 26.6%, Hispanics at 22.1% and Asians at 10.3%.

Percent of Adults Diagnosed with High Blood Pressure in their Lifetime by Level of Education (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In the State as a whole, the higher the educational level, the less likely the adult was to have been diagnosed with high blood pressure. The highest percentage of adults with high blood pressure was 33.9% among those with less than a high school education. The rate decreased to 31.5% for high school graduates, 26.5% for those with some college and 21% for college graduates.

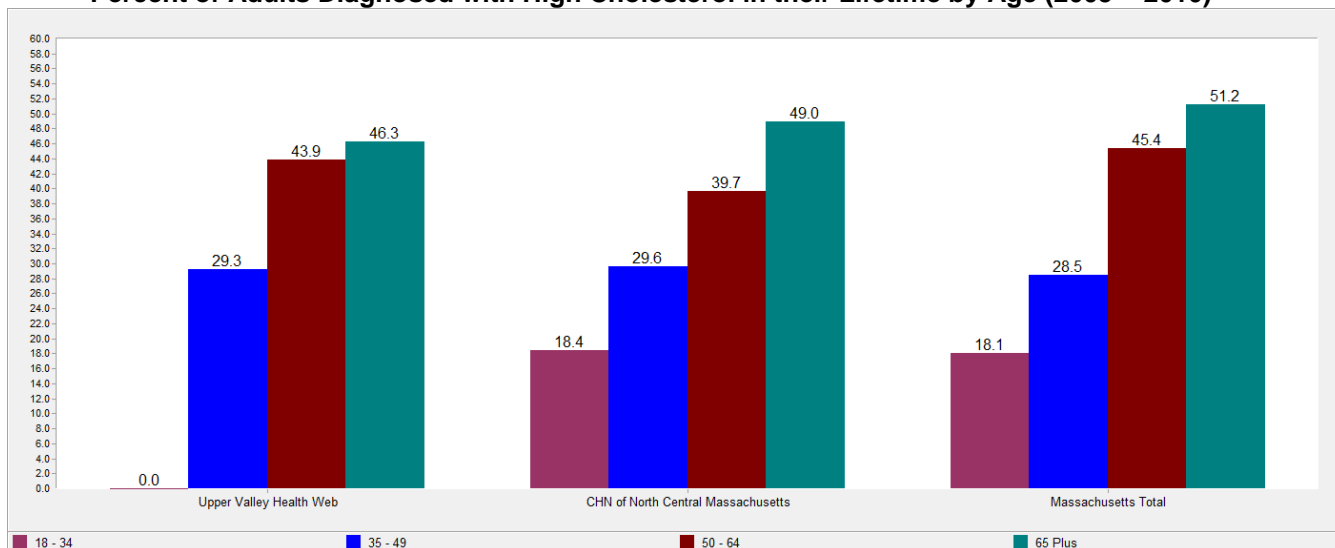
In CHNA 2, the percent of adults who have or had been diagnosed with high blood pressure among those with less than a high school education was suppressed. For the other educational levels, CHNA 2 had rates of adults with high blood pressure which decreased with the level of education as seen within the State. However, the high blood pressure rate for high school graduates within CHNA 2 at 37.2% was higher than that of the State at 31.5%. The high blood pressure rate among those with some college were lower than that of the State, but among college graduates, the high blood pressure rate in CHNA 2 was again higher than that of the State.

Within CHNA 9 a different trend was seen, with high blood pressure rates decreasing from a high of 29.5% among those with less than a high school education to 27.5% of those with a high school diploma and then rising to 29% of those with some college and finally hitting a low of 19.3% for college graduates. These high blood pressure rates were lower than the State for the less than high school, high school graduate and college graduate groups, but higher than the State for the some college group.

High Cholesterol

Within Massachusetts, 35.7% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported that they had been diagnosed with high cholesterol in their lifetimes. Within both CHNA 2 and CHNA 9, this percentage was lower at 33.1% and 34.5%, respectively.

Percent of Adults Diagnosed with High Cholesterol in their Lifetime by Age (2005 – 2010)

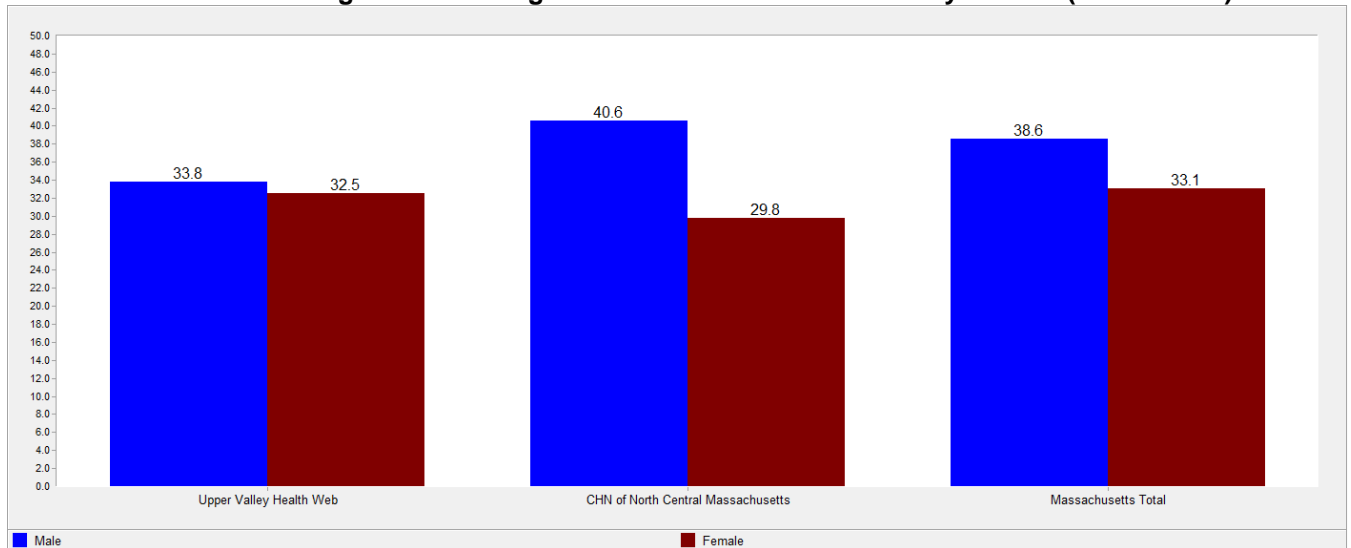


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within the Commonwealth, the percentage of respondents who reported being diagnosed with high cholesterol rose steadily from 18.1% of those in the 18 – 34 age group, to 28.5% of those in the 35 – 49 age group, 45.4% of those in the 50 – 64 age group and 51.2% of those in the 65 plus age group. Although data was suppressed for the 18 – 34 age groups in CHNA 2, this same trend of an increase in high cholesterol with age held true within both CHNAs. For the age groups with sufficient data, CHNA 2 had a higher percentage of adults who have been diagnosed with high cholesterol in the 35 – 49 age group at 29.3% than did the State at 28.5%, but lower percentages of adults with high cholesterol in the 50 – 64 and 65 plus age groups. In CHNA 9, the high blood pressure rate was comparable to the State for the 18 – 34 age group (18.4% vs. 18.1%) and higher for the 35 – 49 age group (29.6% vs. 28.5%), but lower for the 50 – 64 age group (39.7% vs. 45.4%) and for the 65 plus age group (49% vs. 51.2%).

A higher percentage of adult men than adult women have been diagnosed with high cholesterol in CHNA 2, CHNA 9 and within the State. Within CHNA 2, the percentages for both genders were lower than those in the Commonwealth. However, for CHNA 9, the percentage of adult men diagnosed with high cholesterol was higher than that of adult men in the State, while the percent of adult women diagnosed with high cholesterol was lower than that of adult women in the State.

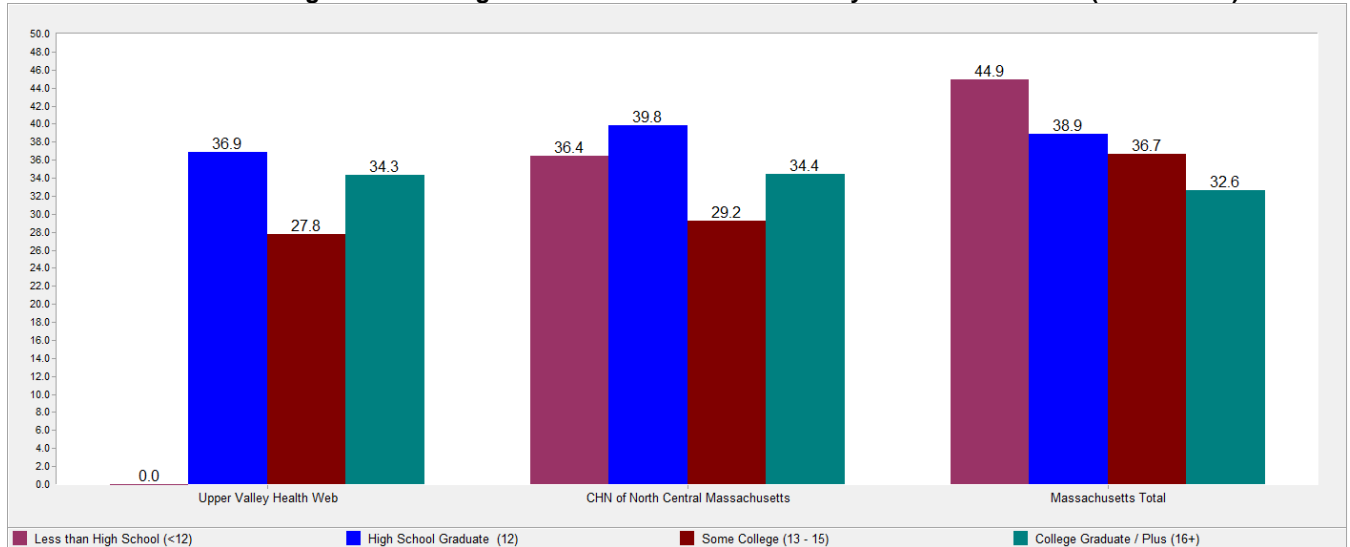
Percent of Adults Diagnosed with High Cholesterol in their Lifetime by Gender (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

The numbers of respondents by race/ethnicity were too few to provide meaningful data within CHNA 2 or CHNA 9. Within the Commonwealth as a whole, the highest percentage of respondents who were diagnosed with high cholesterol was reported among Hispanics at 37%, followed by White, non-Hispanics at 36.3%, Black, non-Hispanics at 31% and Asians at 26.9%.

Percent of Adults Diagnosed with High Cholesterol in their Lifetime by Level of Education (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In the State as a whole, the higher the educational level, the less likely the adult was to have been diagnosed with high cholesterol. The highest percentage of adults with high cholesterol was 44.9% among those with less than a high school education. The rate decreased to 38.9% for high school graduates, 36.7% for those with some college and 32.6% for college graduates.

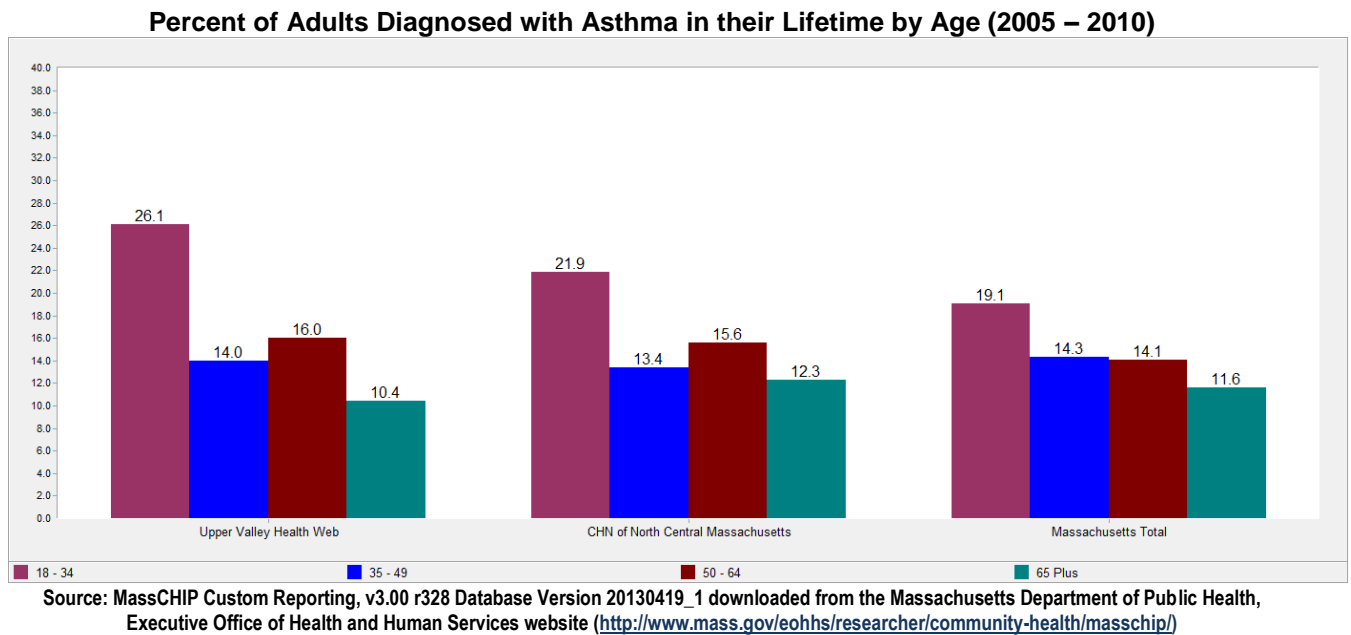
In CHNA 2, the percent of adults who have or had been diagnosed with high cholesterol among those with less than a high school education was suppressed. For the other educational levels, CHNA 2 had rates of adults with high cholesterol which peaked at 36.9% of high school graduates, a rate lower than that of the State for this group of 38.9%. The percentage of adults in CHNA 2 with high cholesterol decreased quite a bit to 27.8% of those with some college, a rate much lower than the State rate of 36.7% for adults with some college. For college graduates, the rate rose to 34.3%, a rate higher than the State's 32.6%.

Within CHNA 9, 36.4% of adults with less than a high school education were diagnosed with high cholesterol. This was much lower than the 44.9% reported for this group in the Commonwealth. For the higher educational levels, a similar trend to that seen in CHNA 2 was evident in CHNA 9, with the highest rate of high cholesterol found in adults who were high school graduates at 39.8%, higher than that of the State for this group at 38.9%. The rate then decreased quite a bit in CHNA 9 to 29.2% of those with some college, a rate much lower than the State rate of 36.7% of those with some college. For college graduates, the rate rose to 34.4%, a rate higher than the State's 32.6%.

Asthma

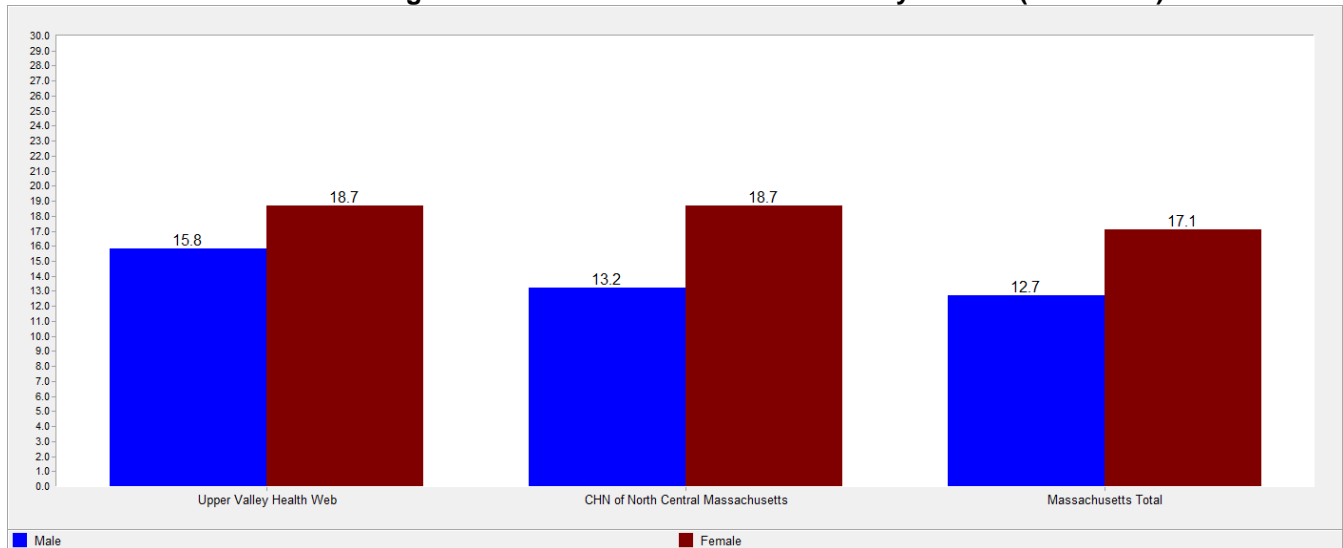
Within Massachusetts, 15% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported that they had been diagnosed with asthma

in their lifetimes. Within both CHNA 2 and CHNA 9, this percentage was higher at 17.3% and 16.1%, respectively.



Within the Commonwealth, the percentage of respondents who reported being diagnosed with asthma fell steadily from 19.1% of those in the 18 – 34 age group, to 14.3% of those in the 35 – 49 age group, 14.1% of those in the 50 – 64 age group and 11.6% of those in the 65 plus age group. Within both of the CHNAs, this downward trend was interrupted by an increase among those in the 50 – 64 year old age group. Both CHNA 2 and CHNA 9 had the highest percentage of those diagnosed with asthma in the 18 – 34 age group, as was also true in the State. However the rates in CHNA 2 at 26.1% and CHNA 9 at 21.9% were both higher than that reported in the State for this age group at 19.1%. As in the State, the rates then decreased in the CHNAs for the 35 – 49 age group, falling to a rate lower than that of the State. However, unlike the State, both CHNA 2 and CHNA 9 saw an increase in asthma rates among the 50 – 64 age group, to 16% in CHNA 2 and 15.6% for CHNA 9, both higher than the State’s 14.1%. Finally, the rates dropped for the 65 plus age group, with CHNA 2 at 10.4%, lower than the State, and CHNA 9 at 12.3%, higher than the State.

Percent of Adults Diagnosed with Asthma in their Lifetime by Gender (2005-2010)

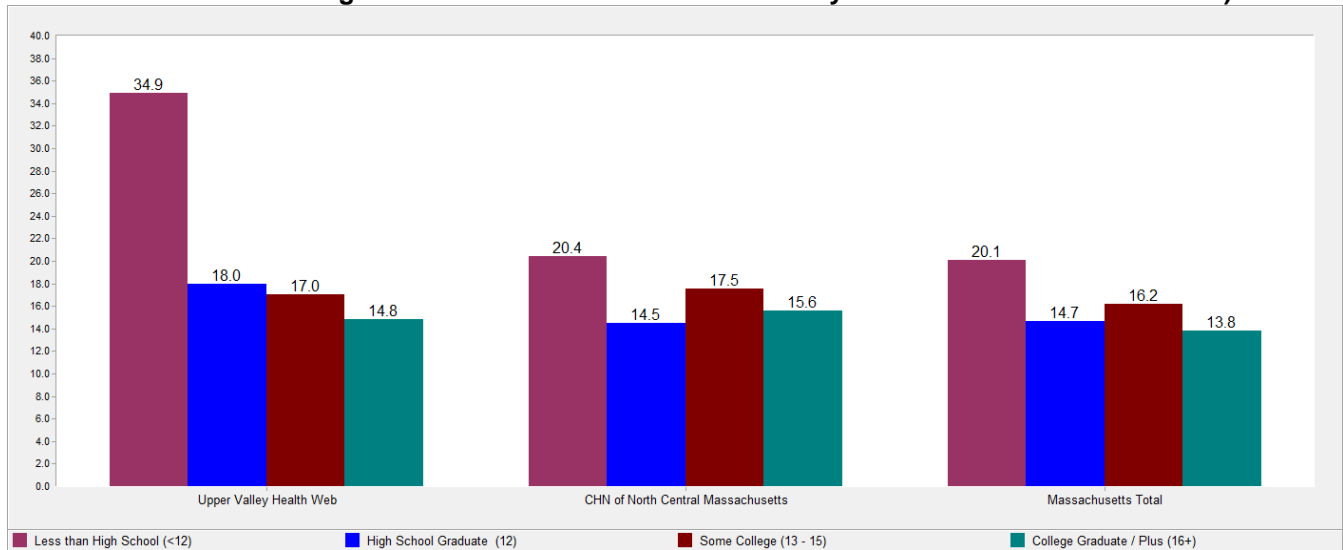


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within CHNA 2, CHNA 9 and the State, a higher percentage of adult women have been diagnosed with asthma than adult men. The percent of adult women with asthma was higher in both CHNA 2 and CHNA 9 at 18.7% than in the Commonwealth at 17.1%. The percent of adult men with asthma was also higher in CHNA 2 at 15.8% and CHNA 9 at 13.2% than in the State at 12.7%.

The numbers of respondents by race/ethnicity were too few to provide meaningful data within CHNA 2 or CHNA 9. Within the Commonwealth as a whole, the highest percentage of respondents who were diagnosed with asthma was reported among Hispanics at 17.6%, followed by Black, non-Hispanics at 16.4%, White, non-Hispanics at 14.9% and Asians at 7.9%.

Percent of Adults Diagnosed with Asthma in their Lifetime by Level of Education 2003-2008)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In CHNA 2, CHNA 9 and the State as a whole, the highest percentage of adults diagnosed with asthma was reported among those with less than a high school education. Although the CHNA 9 rate of 20.4% was only slightly higher than the State rate of 20.1%, the rate in CHNA 2 was 34.9%, a rate more than 1.7 times that of the State for adults with less than a high school education.

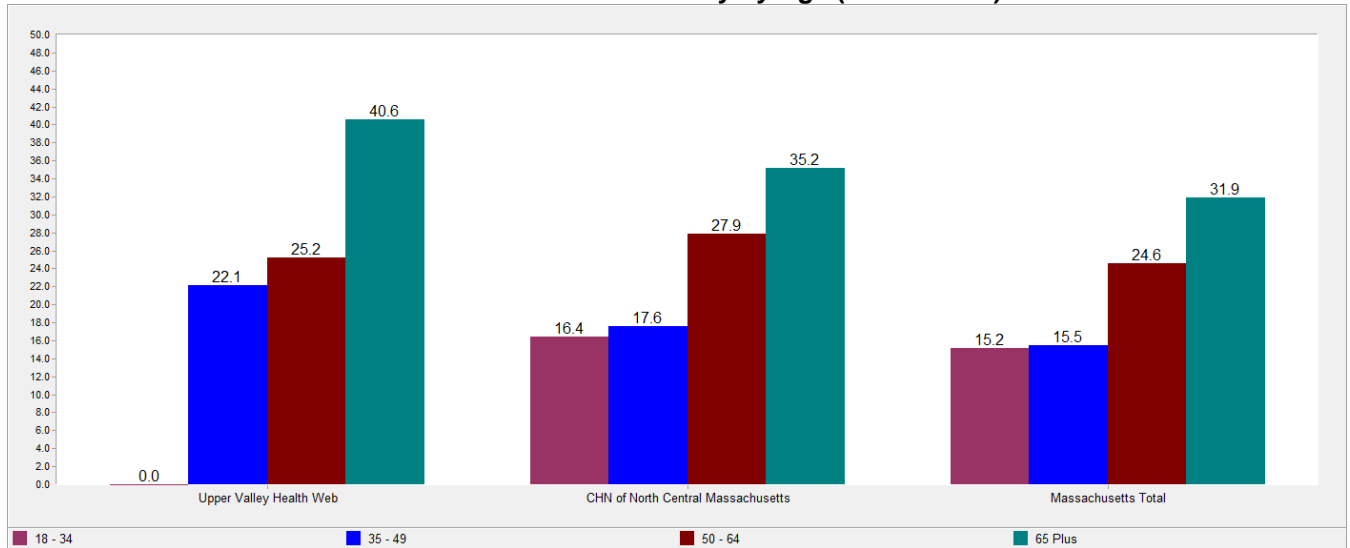
Within adults with a high school education, the CHNA 9 rate of 14.5% was only slightly lower than the State rate of 14.7%, while the CHNA 2 rate of 18% was higher. Both CHNA 2 and CHNA 9 had higher percentages of adults with asthma among those with some college and among college graduates than did the Commonwealth in these groups.

Disability

Within Massachusetts, 20.4% of the Behavioral Risk Factor Surveillance System (BRFSS) respondents in the 2005 – 2010 time period reported having a disability. Within CHNA 2 and CHNA 9, this percentage was higher at 25.4% and 22.3%, respectively.

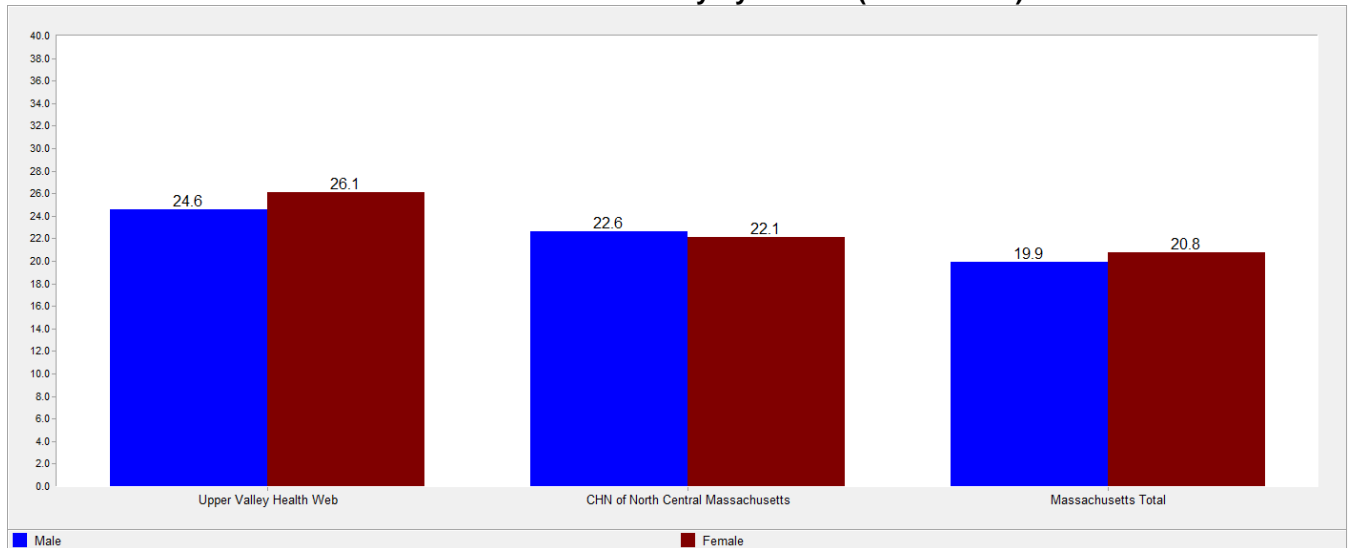
Within the Commonwealth, the percentage of respondents who reported having a disability rose steadily from 15.2% of those in the 18 – 34 age group, to 15.5% of those in the 35 – 49 age group, 24.6% of those in the 50 – 64 age group and 31.9% of those in the 65 plus age group. Although data was suppressed for the 18 – 34 age group in CHNA 2, this same trend of an increase in disability rate with age also held true within both CHNAs. For the age groups with sufficient data, CHNA 2 and CHNA 9 both had higher percentages of adults with a disability in all of the age groups as compared with the State. The highest disability rate among 35 – 49 year olds was reported in CHNA 2 at 22.1%, as compared with 17.6% for CHNA 9 and 15.5% for the State. The highest disability rate among 50 – 64 year olds was reported in CHNA 9 at 27.9%, as compared with 25.2% for CHNA 2 and 24.6% for the State. Finally, for the 65 plus age group, the highest disability rate was in CHNA 2 at 40.6% as compared with 35.2% for CHNA 9 and 31.9% for the State.

Percent of Adults With a Disability by Age (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Percent of Adults With a Disability by Gender (2005 – 2010)

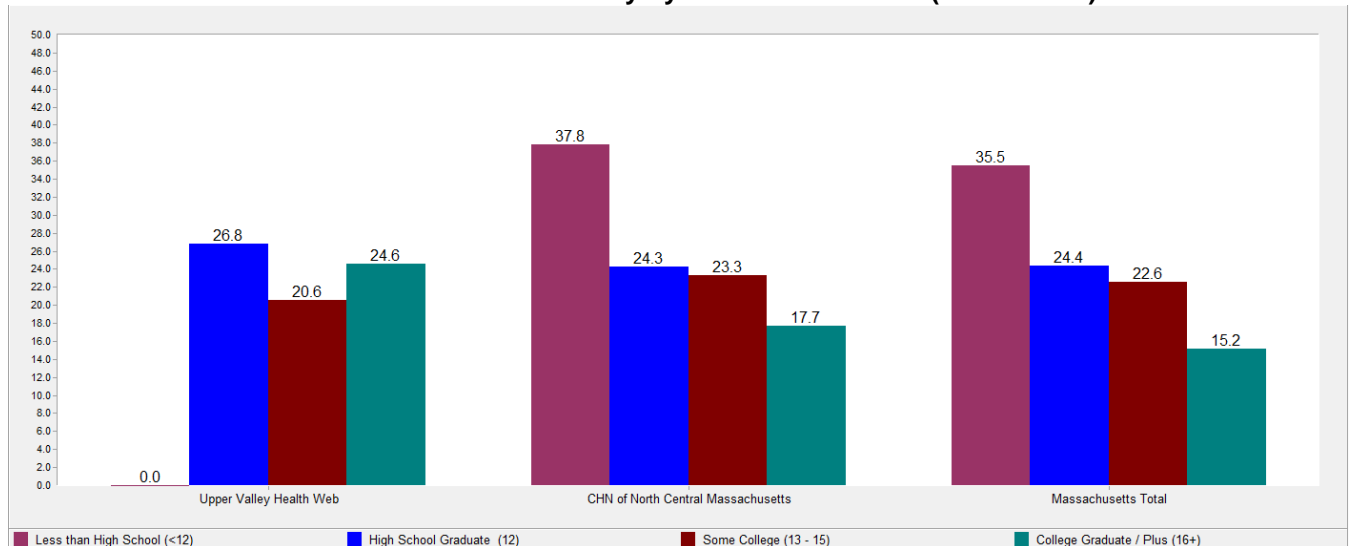


Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Within CHNA 2 and the State, a higher percentage of women reported having a disability than men, while a higher percentage of men than women reported having a disability in CHNA 9. Among men the percentage reporting a disability within CHNA 2 was 24.6% and within CHNA 9 was 22.6%, higher than that reported by men in the Commonwealth overall at 19.9%. The same held true for women, with a higher percentage reporting a disability in CHNA 2 (26.1%) and CHNA 9 (22.1%) than in the State overall (20.8%).

The numbers of respondents by race/ethnicity were too few to provide meaningful data within CHNA 2 or CHNA 9. Within the Commonwealth as a whole, the highest percentage of adults reporting a disability was among White, non-Hispanics at 20.8%, followed by Hispanics at 19.8%, Black non-Hispanics at 19% and Asians at 9.3%.

Percent of Adults With a Disability by Level of Education (2005 – 2010)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

In the State as a whole, the higher the educational level, the less likely the adult was to have a disability. The highest percentage of adults in the State with a disability was 35.5% among those with less than a high school education. The rate decreased to 24.4% for high school graduates, 22.6% for those with some college and 15.2% for college graduates.

In CHNA 2, the percent of adults who had a disability among those with less than a high school education was suppressed. For the other educational levels, CHNA 2 had rates of adults with a disability which peaked at 26.8% of high school graduates, a rate higher than that of the State for this group of 24.4%. The percentage of adults in CHNA 2 with a disability decreased to 20.6% of those with some college, a rate lower than the State rate of 22.6% for adults with some college. For college graduates, the rate rose to 24.6%, a rate 1.6 times that of the State at 15.2%.

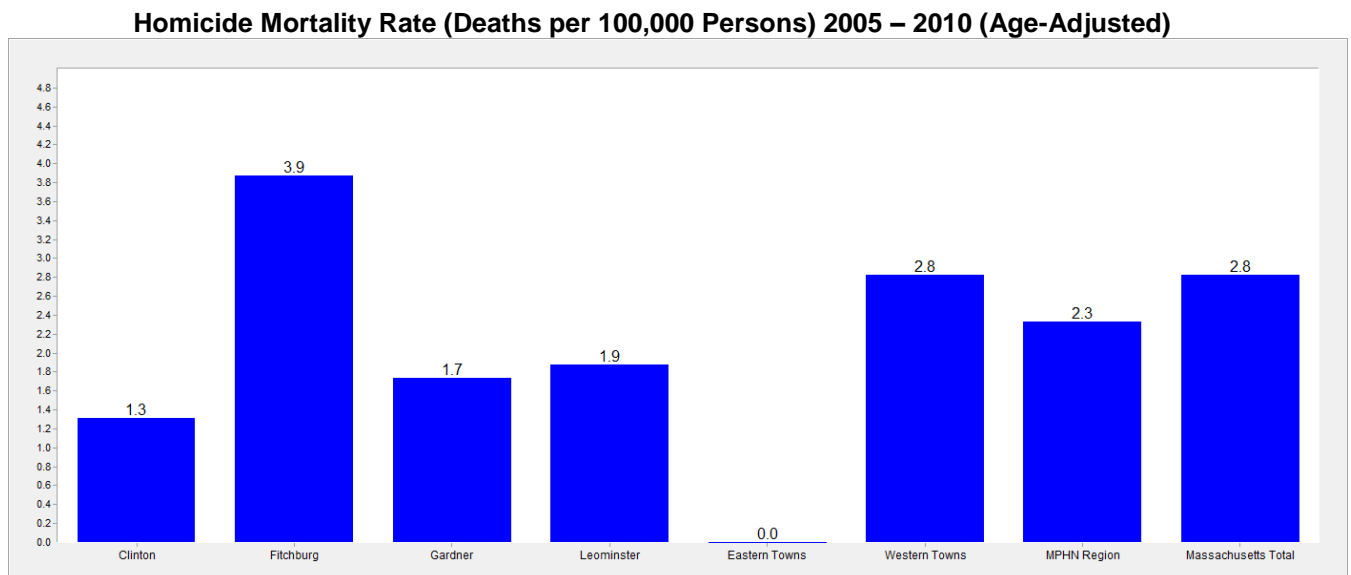
Within CHNA 9, as in the State, the higher the educational level, the less likely the adult was to have a disability. The highest percentage of adults in CHNA 9 with a disability was 37.8% among those with less than a high school education, higher than that of the State for this group. The rate decreased to 24.3% for high school graduates, comparable to the State's 24.4%. The rate continued to decrease to 23.3% for those with some college and to 17.7% for college graduates, both higher than the percentages for these groups in the State.

INJURIES AND VIOLENCE

Homicide Mortality Rate

In Massachusetts there were 1,095 deaths due to homicide in the 2005 – 2010 timeframe, for an annual age-adjusted Homicide Mortality Rate of 2.8 per 100,000. Within the MPH region, there were 22 deaths due to homicide in this time period for an age-adjusted Homicide Mortality Rate of 2.3, a rate lower than that of the Commonwealth as a whole.

Within the reporting regions in the MPH service area, only Fitchburg exhibited a Homicide Mortality Rate higher than the State during this time period, with a rate of 3.9. It must be noted that this number is based on 10 homicides in this time period. The Western Towns, with a Homicide Mortality Rate of 2.8 experienced 4 homicides in this time period, while Leominster reported 5 homicides for a rate of 1.9, Gardner reported 2 homicides for a rate of 1.7 and Clinton reported 1 homicide for a rate of 1.3. There were no homicides reported in the Eastern Towns during this 6 year period.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2020 Goal = 5.5 per 100,000

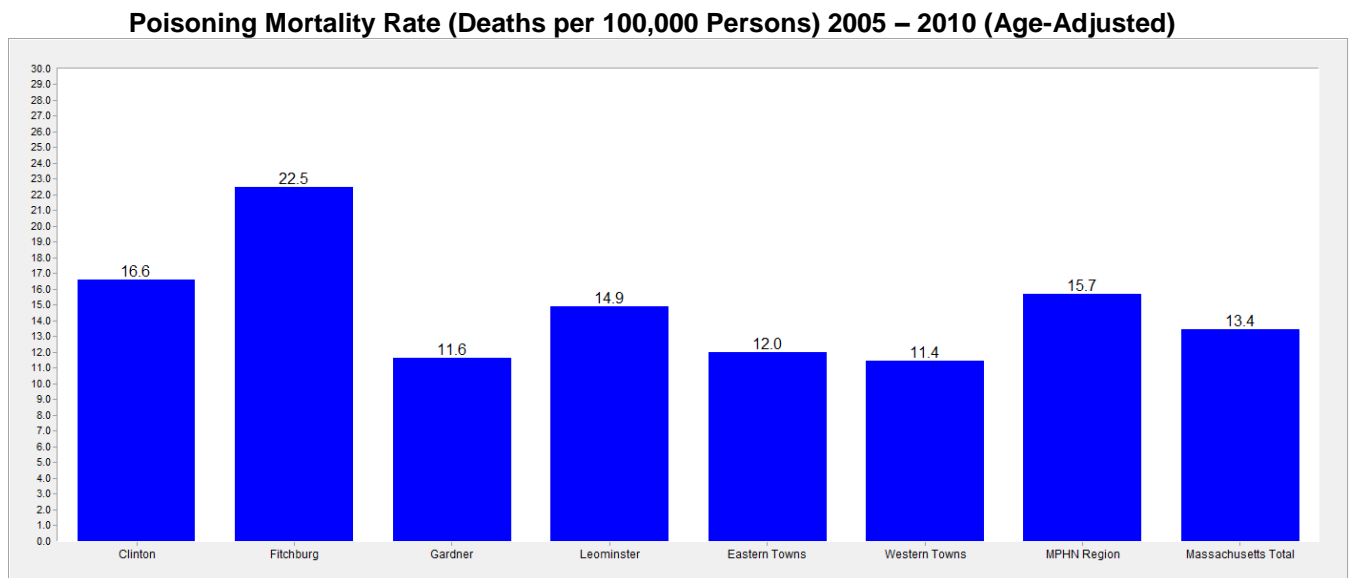
On an individual community basis, it should be noted that there were 3 homicides in Templeton during the period of 2005 – 2010, for a Homicide Mortality Rate of 6.1 and 1 homicide in Athol during this time period for a Homicide Mortality Rate of 1.3.

Poisoning Mortality Rate

The Poisoning Mortality Rate is composed of accidental poisoning by all substances; assault by substances; intentional self-poisoning by non-opioid analgesics, antipyretics, antirheumatics and unspecified and noxious chemicals; and poisoning by undetermined intent.

During the 2005 – 2010 time period, the age-adjusted Poisoning Mortality Rate in Massachusetts was 13.4 per 100,000. Within the MPH region, the age-adjusted Poisoning Mortality Rate was higher than the Commonwealth at 15.7.

Some of the reporting regions in the MPH service had age-adjusted Poisoning Mortality Rates higher than the State, with the highest rate reported in Fitchburg at 22.5, followed by Clinton at 16.6 and Leominster at 14.9. Poisoning Mortality Rates lower than that of the Commonwealth were reported in the Western Towns (11.4), Gardner (11.6) and the Eastern Towns (12.0).



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2020 Goal = 13.1 per 100,000

Within the Commonwealth, the age-adjusted Poisoning Mortality Rate varied among racial/ethnic groups during this time period, with a high of 14.7 for White, non-Hispanics, followed by rates of 12.9 for Black, non-Hispanics, 11.3 for Hispanics, and 1.3 for Asians. Within the MPH region, the numbers are too small to provide a meaningful break out of data by race/ethnicity or by city/town.

Motor Vehicle Related Mortality Rate

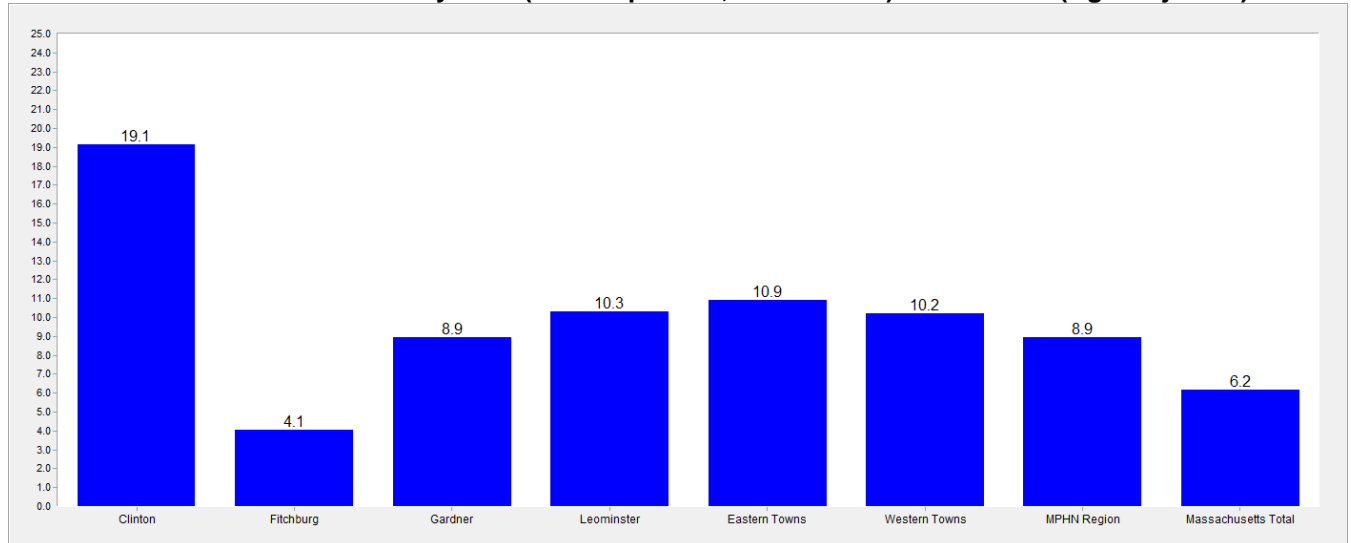
During the 2005 – 2010 time period, the age-adjusted Motor Vehicle Mortality Rate in Massachusetts was 6.2 per 100,000. Within the MPH region, the age-adjusted Motor Vehicle Mortality Rate was higher than the Commonwealth at 8.9.

Most of the reporting regions in the MPH service had age-adjusted Motor Vehicle Related Mortality Rates higher than the State, with the highest rate reported in Clinton at 19.1 (representing 16 motor vehicle related deaths and a rate that was 3.1 times that of the Commonwealth as a whole). Other reporting regions with Motor Vehicle Related Death Rates of more than 10 were the Eastern Towns at 10.9 (representing 9 deaths), Leominster at 10.3 (representing 24 deaths) and the Western Towns at 10.2 (representing 13 deaths). Motor Vehicle Related Mortality Rates lower

than that of the Commonwealth as a whole were reported in the Fitchburg at 4.1 (representing 10 deaths) and Gardner at 8.9 (representing 11 deaths).

Within the Commonwealth, the age-adjusted Motor Vehicle Related Mortality Rate varied among racial/ethnic groups during this time period, with a high of 6.4 for White, non-Hispanics, followed by rates of 6.3 for Black, non-Hispanics, 5.1 for Hispanics, and 3.9 for Asians. Within the MHPN region, the numbers are too small to provide a meaningful break out of data by race/ethnicity or by city/town. However, Templeton is noteworthy in that there were 8 motor vehicle related deaths for a Motor Vehicle Related Death Rate of 18.9 during this time period.

Motor Vehicle Related Mortality Rate (Deaths per 100,000 Persons) 2005 – 2010 (Age-Adjusted)



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Healthy People 2020 Goal = 12.4 per 100,000

Weapons Related Injuries

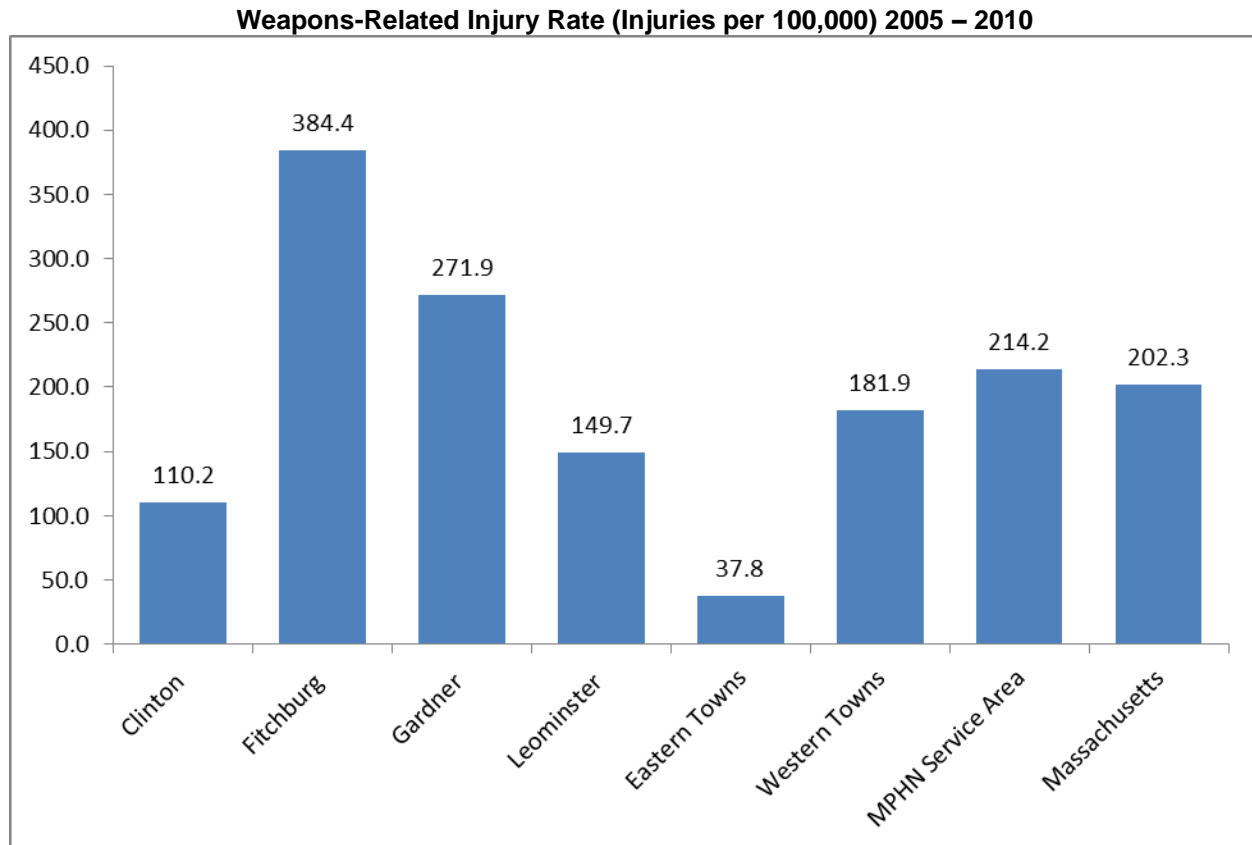
In Massachusetts there were 13,243 weapons-related injuries in the 2005 – 2010 timeframe. During this period, there were 334 weapons-related injuries in the MHPN region. Among the reporting regions, the highest number of weapons-related injuries was reported in Fitchburg at 155, followed by 61 in Leominster, 55 in Gardner, 41 in the Western Towns, 15 in Clinton and 7 in the Eastern Towns.

The Commonwealth as a whole reported a Weapons-Related Injury Rate of 202.3 per 100,000 for the 2005 – 2010 time period. Within the MHPN region, the Weapons-Related Injury Rate was higher than the Commonwealth at 214.2.

Two of the reporting regions in the MHPN service area had Weapons-Related Injury Rates higher than the State, with the highest rate reported in Fitchburg at 384.4 (representing 155 weapons-related injuries and a rate that was 1.9 times that of the Commonwealth as a whole). Gardner also reported a high Weapons-Related Injury Rate of 271.9 (representing 55 weapons-related injuries and a rate that was 1.3 times that of the Commonwealth as a whole).

All of the other reporting regions had Weapons-Related Injury Rates lower than that of the Commonwealth, with the lowest rate reported in the Eastern Towns at 37.8 (representing 7 cases), followed by Clinton at 110.2 (representing 15 cases), Leominster at 149.7 (representing 61 cases) and the Western Towns at 181.9 (representing 41 cases).

The only towns in the MPHNN region to have numbers large enough to be reported in this time period were Athol, with a Weapons-Related Injury Rate of 207.2 (representing 24 cases) and Templeton, with a Weapons-Related Injury Rate of 124.8 (representing 10 cases).



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)

Child Abuse/Neglect

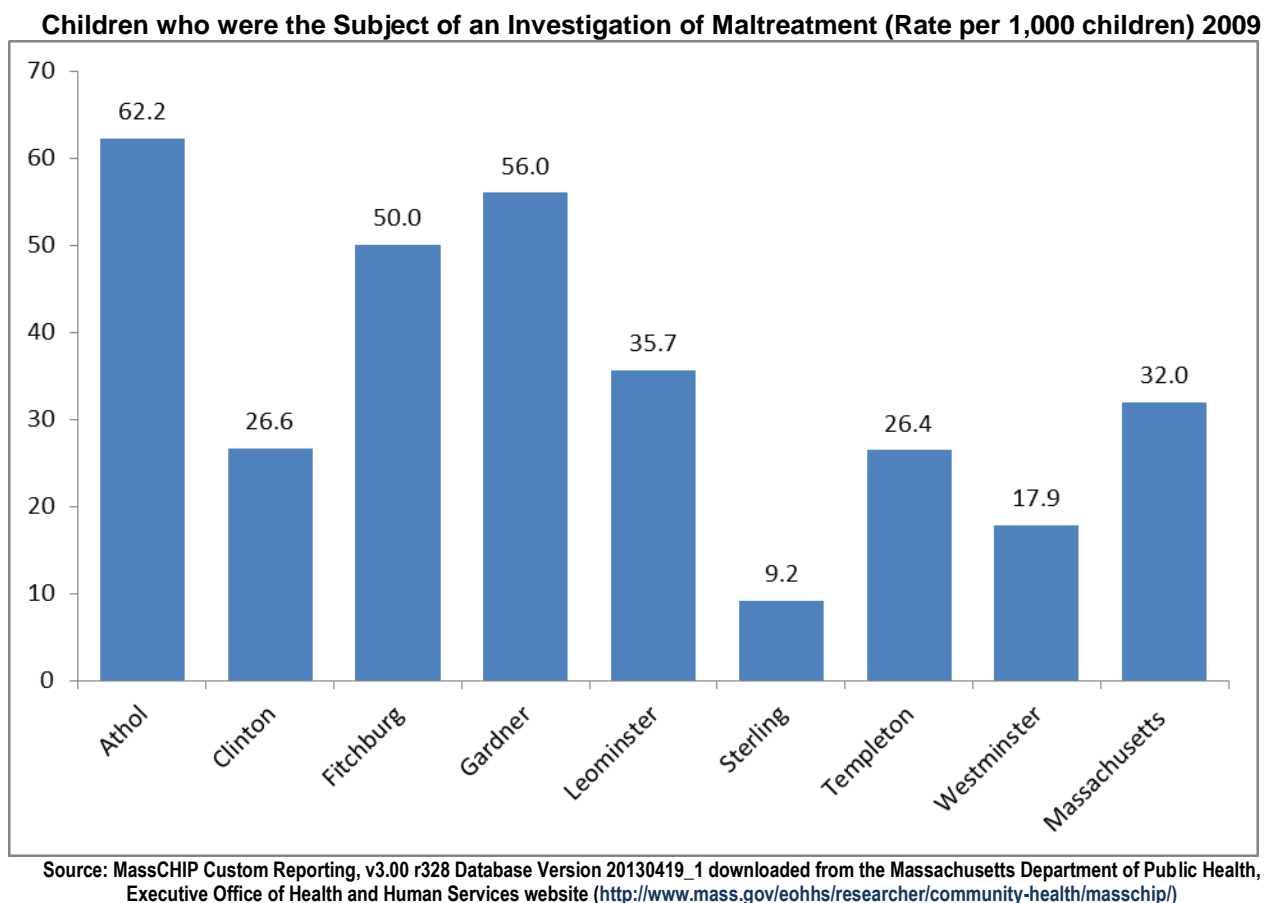
Data relative to child abuse/neglect is only available for individual years. It is not available by reporting regions, but only for individual cities/towns. The most recent data available related to child abuse/neglect is for the one year period of 2009.

Within the Commonwealth there were 51,827 children under the age of 18 with investigations of abuse/neglect (maltreatment) in 2009. Among the MPHNN communities, the highest number of investigations of child/abuse neglect was reported in Fitchburg at 551, followed by 366 in Leominster, 264 in Gardner, 182 in Athol, 87 in Clinton, 56 in Templeton, 34 in Westminster and 19

in Sterling. Information is not available for Phillipston, Princeton and Royalston because the actual number of cases was small, so the numbers were suppressed.

The Commonwealth as a whole reported 32 maltreatment investigations per 1,000 children in 2009. Four of the communities within the MPH region reported rates of child abuse/neglect (maltreatment) investigations higher than that of the State. The highest rate was reported in Athol at 62.2 or 1.9 times the rate reported in the Commonwealth as a whole. Gardner also reported a high maltreatment investigation rate (56), as did Fitchburg (50) and Leominster (35.7).

The lowest rate of investigations of maltreatment of children was reported in Sterling with 9.2 cases per 1,000 children, followed by Westminster at 17.9, Templeton at 26.4 and Clinton 26.6.

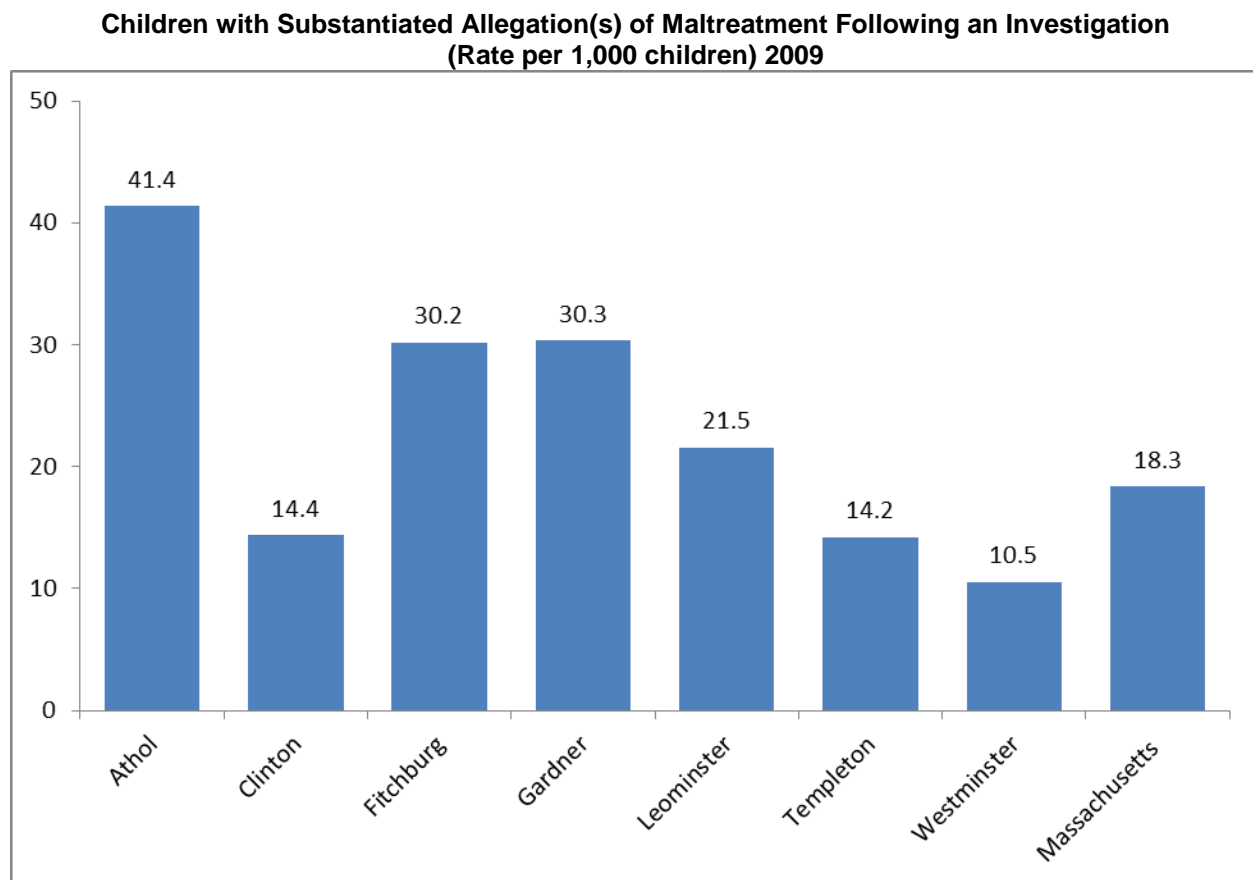


A second measure relative to the maltreatment or abuse/neglect of children is the number of substantiated allegations following an investigation. Within the Commonwealth in 2009, there were 29,741 children under the age of 18 with substantiated allegations of abuse/neglect (maltreatment) following an investigation. Among the MPH communities, the highest number of substantiated cases of child/abuse neglect was reported in Fitchburg at 332, followed by 221 in Leominster, 143 in Gardner, 121 in Athol, 47 in Clinton, 30 in Templeton and 20 in Westminster.

Information is not available for Phillipston, Princeton, Royalston and Sterling because the actual number of cases was small, so the numbers were suppressed.

Within the Commonwealth as a whole in 2009, there were 18.3 substantiated allegations of child abuse/neglect (maltreatment) following an investigation per 1,000 children. Four of the communities within the MPH region reported rates of substantiated child abuse/neglect (maltreatment) higher than that of the State. The highest rate was reported in Athol at 41.4 or 2.3 times the rate reported in the Commonwealth as a whole. Gardner also reported a high substantiated maltreatment rate (30.3), as did Fitchburg (30.2) and Leominster (21.5).

The lowest rate of substantiated allegations of maltreatment following an investigation was reported in Westminster with 10.5 cases per 1,000 children, followed by Templeton at 14.2 and Clinton 14.4.



Source: MassCHIP Custom Reporting, v3.00 r328 Database Version 20130419_1 downloaded from the Massachusetts Department of Public Health, Executive Office of Health and Human Services website (<http://www.mass.gov/eohhs/researcher/community-health/masschip/>)
Healthy People 2020 Goal = 8.5 Substantiated Maltreatment Victims per 1,000 Children under the Age of 18

Domestic Violence

The most consistent data available on domestic violence is from the Massachusetts Trial Court Civil Protection Order Registry. The registry records the permanent protection orders issued by the six District Courts in North Central Massachusetts. However, this data does not reflect the number of Temporary Civil Protection Orders issued by the police on evenings and weekends or by the courts for a period of 24 hours to ten days.

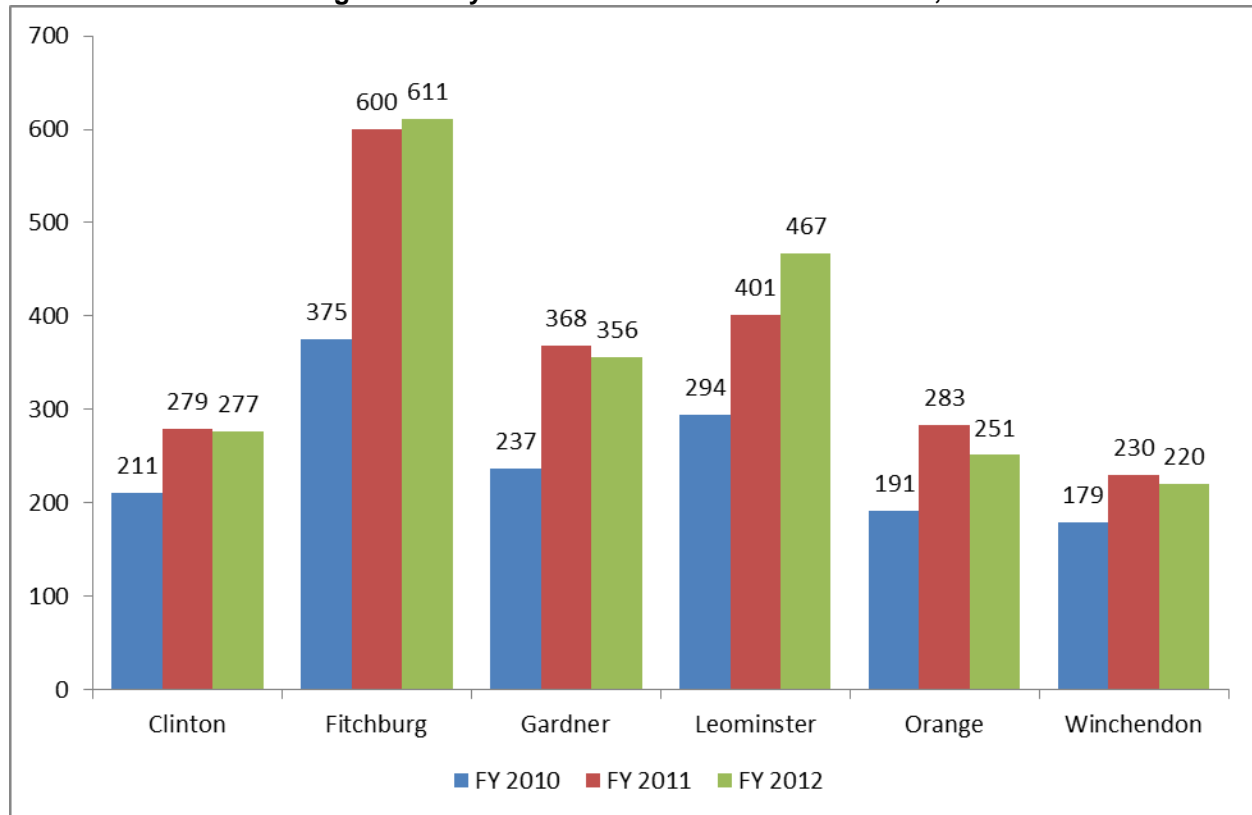
The communities within the MPHN region are a part of 6 different District Courts in North Central Massachusetts. These District Courts and the MPHN communities associated with each are shown in the table below.

District Court	MPHN Communities
Clinton	Clinton, Sterling
Fitchburg	Fitchburg
Gardner	Gardner, Westminster
Leominster	Leominster, Princeton
Orange	Athol
Winchendon	Phillipston, Royalston, Templeton

Source: Massachusetts Court System, Office of the Trial Court website (<http://www.mass.gov/courts/courtsandjudges/courts/courtsworc.html>)

The number of Civil Restraining Orders issued in the District Courts in the MPHN region increased from fiscal year 2010 to fiscal year 2011 in all cases. Fitchburg experienced the largest percentage increase with a 60% increase in Civil Restraining Orders in this one year period, followed by Gardner with a 55% increase and Orange with a 48% increase. When the data from all of the District Courts in the MPHN region are combined, there was a 45% increase in the number of Civil Restraining Orders between fiscal year 2010 and fiscal year 2011.

Civil Restraining Orders by District Court for Fiscal Years 2010, 2011 and 2012



Source: Massachusetts Court System, Office of the Trial Court website (<http://www.mass.gov/courts/courtsandjudges/courts/stats/index.html>)

Between fiscal year 2011 and fiscal year 2012, some of the District Courts in the MPH region showed a small decrease in Civil Restraining Orders, while in other courts the numbers continued to rise. When the data from all of the District Courts in the MPH region are combined, there was a 1% increase in the number of Civil Restraining Orders between fiscal year 2011 and fiscal year 2012.

When the fiscal year 2010 to fiscal year 2012 time frame is considered as a whole, the District Courts in the MPH region had an increase in Civil Restraining Orders of 47%. Among the individual District Courts, Fitchburg experienced the largest percentage increase in Civil Restraining Orders during this time period at 63%, followed by Leominster at 59% and Gardner at 50%.

SUMMARY AND CONCLUSIONS

This Community Health Assessment is designed to provide information and analysis relative to health status, issues, concerns, and assets of the communities that form the Montachusett Public Health Network (MPHN). In addition to providing a picture of the region's health, this Assessment meets contractual requirements for the Public Health District Incentive Grants (PHDIG) awarded to local public health districts by the Massachusetts Department of Public Health and funded through the CDC National Public Health Improvement Initiative.

This Assessment includes two parts. Part 1 contains quantitative and qualitative data related to the demographic and sociodemographic characteristics of the MPHN region as well as the MPHN's three priority areas: Mental Health and Substance Abuse, Suicide, and Overweight/Obesity. Part 2 contains quantitative and qualitative data related to the General Health Characteristics of the region. It is important to note that the MPHN's priority areas were established prior to researching and writing this report. They were based on findings of previous health assessments conducted by the Joint Coalition on Health and the CHNA 9. Consequently, there is a preponderance of data related to the priority areas, particularly with regard to qualitative information. The Focus Group and Key Informant Interview tools developed to capture "the community voice" were designed specifically to elicit responses related to the priority areas. As a result, there is much less qualitative information included in Part 2. However, the information that is included was spontaneously generated by Focus Group and/or Key Informant Interview participants and represents an authentic voice.

The data presented here demonstrates that many of the health concerns that residents of North Central Massachusetts face are considered **preventable chronic conditions** (i.e., overweight/obesity which could be prevented with changes to specific risk factors and health behaviors, such as poor diet and insufficient physical activity). This indicates that there are interventions and initiatives that we, as municipalities, community members and agencies, can undertake in our own lives and for our clients and employees which can lead to improved health for our region.

Unfortunately, research has shown that preventable chronic conditions are greatly impacted and exacerbated not only by sociodemographics and social determinants (see section on Health Disparities), but also by economic conditions. In difficult economic times, such as those we are currently facing, positive health behavior changes are difficult to initiate and sustain. With high unemployment rates and reductions in workers' hours, it is more difficult for residents to purchase healthy foods, maintain fitness club memberships, participate in stress-reducing activities and afford health insurance premiums – all of which have been shown to positively impact health and quality of life. Racial and ethnic minorities bear the additional burden of racism and language barriers which compound these challenges.

At the same time, research has also shown that preventable chronic conditions put a strain on the local economy. Costs to employers from absenteeism are more than twice direct medical costs incurred by employees through their employer-based health plans. Consequently, we, as a region, must focus on assisting our families, our clients and our employees to make healthy

choices in their lives. We should come together as a community with participation from all sectors to improve access not just to healthcare, but to other basic goods and services which enable residents to make healthier lifestyle choices. We must make the case that a healthy community contributes to a healthier economy.

The Montachusett Public Health Network (MPHN) is one of many examples of how the North Central Massachusetts area has already begun to come together in this way. The MPHN, the Joint Coalition on Health and the CHNA 9 as well as other cross-sector collaborations like the Gardner Area Interagency Team, the North Quabbin Community Coalition, the North Central Massachusetts Faith Based Community Coalition, the Minority Coalition, the Greater Gardner Suicide Prevention Task Force, etc. work together every day to ensure equal access to resources for all residents. These coalitions and partnerships are known throughout the region and across the state as tremendous assets and were mentioned in Focus Groups and Key Informant Interviewees as key community resources.

Other assets and resources that were specifically mentioned by community members in the course of developing this Assessment included: Healthcare Resources such as the local federally qualified community health center, Community Health Connections, Inc. and the Massachusetts Health Connector; Prevention Resources within the schools and community like Fun 'n FITchburg which focuses on preventing childhood obesity and Community Action Teams which focus on reducing minors' access to alcohol as well as tobacco and other drugs; Nutrition and Fitness Programs such as WIC, the local Farmers Markets, Meals on Wheels and Mount Wachusett Community College's Fitness Center; Municipal Infrastructure Improvements like playgrounds, parks and pedestrian friendly walkways; Municipal Boards and Committees like the local Boards of Health which offer services and help to change policies for better health and Open Space Committees working to improve the physical environment; and Implementation of Best Practices like the Medical Home Model at Community Health Connections, improvements to school menus, Prescription Take Back Days and prescription and sharps disposal services.

These assets provide a foundation upon which the MPHN, its member communities and partners can build to achieve its mission of ***“raising the health status of the region’s residents to the highest in the country.”***